Calhoun
Institutional Archive of the Naval Postgraduate School

Calhoun: The NPS Institutional Archive

DSpace Repository

Theses and Dissertations | 1. Thesis and Dissertation Collection, all items

1965-06

Management of the operations and maintenance of Navy family housing

Olson, Paul D.

George Washington University

http://hdl.handle.net/10945/12595

Downloaded from NPS Archive: Calhoun

DUDLEY KNOX LIBRARY

http://www.nps.edu/library

Calhoun is the Naval Postgraduate School's public access digital repository for research materials and institutional publications created by the NPS community. Calhoun is named for Professor of Mathematics Guy K. Calhoun, NPS's first appointed -- and published -- scholarly author.

Dudley Knox Library / Naval Postgraduate School
411 Dyer Road / 1 University Circle
Monterey, California USA 93943

NPS ARCHIVE
1965.06
OLSON, P.

MANAGEMENT OF THE OPERATION AND MAINTENANCE OF NAVY FAMILY HOUSING

by

Paul D. Olson

Bachelor of Science
United States Naval Academy, 1951
and
Bachelor of Civil Engineering
Rensselaer Polytechnic Institute, 1956

A Thesis submitted to the faculty of the School of Government, Business and International Affairs of the George Washington University in partial satisfaction of the requirements for the degree of Master of Business Administration

June 1965

Thesis directed by
Karl E. Stromsem, Ph.D.
Professor of Public Administration

Thesis
053

Library
U. S. Naval Postgraduate School
Monterey, California

MANAGEMENT OF THE OPERATION AND MAINTENANCE OF NAVY FAMILY HOUSING

by

Paul D. Olson

Bachelor of Science
United States Naval Academy, 1951
and
Bachelor of Civil Engineering
Rensselaer Polytechnic Institute, 1956

A Thesis submitted to the faculty of the School of Government, Business and International Affairs of the George Washington University in partial satisfaction of the requirements for the degree of Master of Business Administration

June 1965

Thesis directed by
Karl E. Stromsem, Ph.D.
Professor of Public Administration

Library
U. S. Naval Postgraduate School
Monterey, California

PREFACE

In 1960, during a tour as Assistant Public Works Officer at the U. S. Marine Corps Air Station, Kaneohe Bay, Hawaii, the author participated, at the field activity level, in the centralization of the Navy's family housing program under the Chief, Bureau of Yards and Docks, who was designated as Single Executive for Navy Family Housing. This program was further centralized on a Department of Defense-wide basis in 1961. The purpose of this centralization was to provide for improved management of family housing on a program basis.

It is the purpose of this paper to study the progress of the Navy's family housing management system as it has evolved since 1960. The present system will be evaluated to determine whether it is meeting the needs of the activity, the Field Engineering Office, and the Bureau of Yards and Docks managers in providing for effective execution of the program for operation and maintenance of family housing.

Data for the study was obtained through a questionnaire sent to the field activities and the Bureau of Yards and Docks Field Engineering Offices listed in Appendix I. Copies of the questionnaires used are included as Appendices II and III.

Chapter I provides information on the historical development of the Navy's family housing program from a small, fragmented program, to the highly centralized functional program which exists

today. Chapter II contains a description of the present management system and the manner in which it is intended to meet the needs of the Navy's three levels of housing management. In Chapter III an evaluation is made to determine some of the problem areas facing housing management. Chapter IV focuses upon certain areas which will require management's attention in the future in order to provide for improved execution of the family housing program in the Navy.

The author wishes to express sincere appreciation to Commander B. F. Burch and Mr. L. P. Lyon of the Office of the Deputy Assistant Secretary of Defense (Installation and Logistics) Family Housing, to Commander H. L. Bowman and Mr. G. T. Korink and their staffs of the Bureau of Yards and Docks, to the field activity Public Works Officers, and to the Field Engineering Offices for their willingness to assist by providing information and completing the questionnaire upon which this study has been based. It is hoped that this paper can make a contribution to the Navy's family housing program and will prove to have been worthy of their assistance.

TABLE OF CONTENTS

		Page
PREFACE		ii
LIST OF EXHIBITS		vi
Chapter I.	THE ORIGIN AND NATURE OF THE NAVY FAMILY HOUSING PROGRAM	1
	Background	1
	The Bureau of Yards and Docks, The Navy's Single Executive for Family Housing	7
	Vertical Organization Extended	11
	Summary	18
II.	THE NAVY'S HOUSING MANAGEMENT SYSTEM DEFINED	20
	Organization	21
	The Secretariate Level	
	Housing Organization at the Bureau of Yards and Docks Level	
	Housing Organization at the Field Engineering Office Level	
	Housing Organization at the Field Activity Level	
	Financial Management Program	30
	Work Planning	
	The Budget Process	
	Cost Control and Cost Standards	
	Occupancy and Utilization	47
	Coordination of Assignments	
	Quarters Designation	
	Management Assistance Reviews	50
	Occupant Relations Program	52
	Summary	53
III.	EVALUATION OF THE NAVY'S FAMILY HOUSING MANAGEMENT SYSTEM	54
	Organization	54
	Financial Management	64
	Planning	
	Budget Preparation and Execution	
	The Accounting Dichotomy	
	Occupancy and Utilization	82

Page

Management Assistance Reviews 87
Occupant Relations Program 88

IV. SUMMARY AND CONCLUSIONS 89

Problems and Needs of the Organization 90
Managing Dollar Resources 91

APPENDICES 96

I. Activities and Field Engineering Offices Participating in the Survey 97

II. Activity Questionnaire 99

III. Field Engineering Office Questionnaire 108

BIBLIOGRAPHY 112

LIST OF EXHIBITS

Exhibit		Page
1.	Alternative Means of Centralizing Housing	16
2.	Advantages and Disadvantages of Alternative Organization Forms	17
3.	Department of Navy Family Housing Organization	22
4.	Long Range Maintenance Plan - Family Housing	33
5.	Annual Budget Estimate for Maintenance and Operations of Family Housing	35
6.	Categories of Housing	39
7.	Family Housing Operation and Maintenance Cost Report	43
8.	Acceptable Cost Ranges for O&M of Family Housing	45
9.	Housing Report	49
10.	Housing Utilization Report	51
11.	Comparison of Housing Manager's Grade Level and Public Works Officer's Time on Housing	59
12.	Comparison of Housing Maintenance Funds with the Public Works Officer's Time Allocated to Housing	62
13.	Composite Backlog of Essential Maintenance Trend for 23 Selected Activities	71
14.	Backlog of Essential Maintenance Trends of Four Selected Activities	72
15.	Excerpt from Activity Accounting Guide	76
16.	Public Works Control Summary	81
17.	Activity Four-Year Average Duration of Occupancy	83

Exhibit Page

18. Officer's Quarters Record 85

19. Vacancy Progress Record 86

CHAPTER I

THE ORIGIN AND NATURE OF THE NAVY FAMILY HOUSING PROGRAM

Background

Provision of family housing to members of the United States Armed Forces was first authorized in 1782, when an act was passed which specified that a Major General and his family would be provided with one covered 4-horse wagon and one 2-horse wagon.[1] The concept of family housing for the military was slow to develop, however, primarily because the Armed Forces were small and only a small percentage of the officers and men were married and needed family housing. By the early 1800's it became a general practice to build quarters on-station for the commanding officer and a few of the senior officers and top ranking enlisted men.

The first formal recognition of the need to provide quarters for the families of Navy men came in 1866, when Secretary of the Navy Gideon Wells issued General Order 75, which established a quarters allowance in an amount equal to one third of their pay for officers who were not provided with family

---

[1] U. S. House of Representatives, Committee on Appropriations, Surveys and Investigations Staff, Report on Costs of Operating and Maintaining Capehart, Wherry, and Other Family Housing, U. S. Department of Defense, January 1961, p. 3.

quarters on shore stations. The advent of World War I brought two more major changes in this regard. First, the allowance for quarters was extended to married enlisted men for whom on-station housing was not available. Second, the government, by legislation enacted on April 16, 1918, accepted the responsibility to provide quarters for the dependents of commissioned officers.

> In accordance with this law, an officer who maintained a home for a wife, child, or dependent parent was furnished for such dependents the number of rooms provided by the Act of 1907, or if government quarters were not available, the commissioned officer was paid commutation of quarters . . . This authorization was without regard to personal quarters furnished him elsewhere--inside or outside the United States.[2]

During the succeeding years, construction of on-station quarters continued to be sporadic. By 1939, there were only about 25,000 units of family housing throughout the Armed Forces. The relatively static housing requirement during this period was occasioned by " . . . the relative stability in the level of military personnel, their longer tenure of assignment at the installation, and the smaller ratio of married personnel in the service, . . . with less frequent relocation of families. . . . These factors permitted an effective programming of appropriations for family quarters."[3]

The rapid build-up of the military during World War II saw an increase in the number of family quarters, the majority

---

[2]U. S. Department of Defense, Appendix to the Report of the Advisory Panel on Military Family Housing Policies and Practices, November 15, 1961, p. E-4.

[3]Surveys and Investigations Staff, op. cit., p. 9.

of which were rental quarters of temporary construction authorized under the Lanham Act and other emergency legislation. At the war's end, however, new construction again lagged; and such funds that were appropriated, were used primarily for construction of "shell" or quonset-type temporary units or for conversion of existing temporary quarters into adequate public quarters. This period of inactivity resulted largely because ". . . of the uncertainty of the Nation's long-range military plans, and partly because of large numbers of temporary World War II assets that were in existence."[4]

Despite the fact that the number of personnel in the Armed Forces had been sharply reduced at the end of the war, the demand for family housing exceeded the supply in 1949. This condition was because of the need to maintain a larger military force composed of a higher percentage of married men; the necessity for retaining trained and experienced technical personnel; and the establishment of installations in isolated locations where adequate community support was not available.[5]

To meet this unfilled demand for family housing, the Congress in 1949 authorized the Wherry program. The "Wherry" Act[6] authorized privately-financed housing projects to be constructed on government-owned land, on, or near military

---

[4]Appendix to the Report of the Advisory Panel, op. cit., p. C-2.

[5]Ibid.

[6]Public Law 81-211, enacted August 8, 1949. This act became known as "The Wherry Act" and housing constructed under its provisions became known as "Wherry Housing."

installations. The land was leased to the project sponsor who arranged for a mortgagor corporation to finance, construct, and operate and maintain the project. The housing units were made available to military and civilian tenants as designated by the local base commander on a rental basis.

The Wherry program produced a total of over 83,000 units in the five year period from 1949 through 1954. Of this total, 15,000 units in 23 locations were constructed in support of the Navy's requirements.[7]

The importance of military family housing was more fully recognized in 1950 when President Truman directed the establishment of the Defense Housing Commission to study the problem. As a result of this study, the Armed Forces Housing Agency was established to exercise central responsibility for all aspects of the family housing program, except fiscal. While some progress was made with the program, the agency was disestablished in 1953 and its functions assigned to the Assistant Secretary of Defense (Properties and Installations).[8] Defense Department efforts with the program were rewarded in 1954 by passage of a Department of Defense housing bill, which was the first significant appropriated fund housing program. This, and later legislation in 1955, 1956, and 1957 authorized some 32,000 housing units, of which only about 18,000 were subsequently funded and built. It should be noted that the funding and construction

---

[7] Appendix to the Report of the Advisory Panel, op. cit., p. C-3.

[8] Since redesignated Assistant Secretary of Defense (Installations and Logistics).

fell short of authorization because many of the projects were subjected to lengthy reviews to determine whether they could be more suitably developed under the newly authorized Capehart program.[9]

Increasing construction costs and Congressional restrictions on mortgage procedures brought the Wherry program to a halt in 1955. Continuing concern that funding would not keep up with authorizations, however, prompted the Defense Department to devise a new program for private financing of Military housing, not beset by some of the defects of the Wherry program. "Specifically, we sought a program under which the mortgages would cover all construction costs, and ownership of the completed projects would vest in the military departments."[10]

Congress supported the Defense Department program and enacted the Capehart program[11] which contemplated that housing would be constructed on government-owned land by private contractors who, after competitive bidding, obtained financing through the proceeds of 100 per cent mortgages insured by the Federal Housing Administration. After construction was completed, the capital stock of the mortgagor corporations was delivered to the sponsoring Military Department which assumed responsibility for operation and maintenance of the housing as well as amortizing

---

[9] Appendix to the Report of the Advisory Panel, op. cit., p. C-2.

[10] Ibid., p. C-4.

[11] Public Law 84-345, enacted August 11, 1955. This act became known as "The Capehart Act" and the housing constructed under its provisions became known as "Capehart Housing."

the mortgage over a 25 year period. The units constructed under the Capehart program were public quarters, occupied on the basis of forfeiture of the military members' allowance for quarters. In addition, because of financial losses by Wherry project owners and fears that the larger Capehart units would provide competition for their relatively small units, the Capehart legislation provided for mandatory acquisition of Wherry projects "at or near" military installations where Capehart projects were being built.[12]

The Capehart program produced over 115,000 units of family housing before it expired in 1962. Additional housing requirements since 1962 have been financed largely from appropriated funds. With the end of both the Wherry and Capehart programs for financing of family housing, the military family housing program was left to compete for appropriated fund dollars along with other military requirements such as weapons systems and training. While it is recognized that family housing does contribute to the defense effort, its inability to compete successfully against weapons systems for funds is resulting in obstacles in acquiring the additional assets needed to meet remaining family housing requirements.

Thus, the world-wide inventory of Department of Defense family housing grew from about 25,000 units in 1939 to about 335,000 units by June 30, 1960. Of this total, the Navy's share was over 78,000 units with an annual operation and maintenance

---

[12] Appendix to the Report of the Advisory Panel, loc. cit.

cost of over $62 million. Management of these family housing assets, even the Navy's share, is "big business." It is with the management of the Navy's 78,000 units of family housing assets that this paper will be concerned.

The Bureau of Yards and Docks, The Navy's Single Executive for Family Housing

Prior to 1960, the management of the operations and maintenance of family housing within the Navy was under the cognizance of the individual Management Bureaus and offices.[13] The family housing was maintained along with other activity real property with little or no effort to manage the assets on a program basis.

The first efforts directed toward keeping expenditures on quarters at a reasonable level were expressed by the Secretary of the Navy when the annual dollar allowances were established for furniture and furnishings and for the structural features of officers' quarters. These allowances were intended to preclude unreasonable expenditures on senior officers' quarters, which had frequently been demanded by the occupant without regard to prudent need. Additionally, to keep furniture costs in line, item allowances were established for all public quarters. The Chief, Bureau of Yards and Docks was designated by the Secretary of the Navy to administer these allowances.

---

[13]An exception to the rule was found in the administration of rental housing which was under the Bureau of Yards and Docks, irrespective of the Field Activity's Management Bureau. Receipts for shelter rent were deposited with the U. S. Treasury, utilities costs were reimbursed directly by the tenant, and other maintenance and operation costs were borne by appropriated funds provided to the Activity by the Bureau of Yards and Docks.

In line with administering the allowances established by the Secretary of the Navy and in view of the Bureau of Yards and Docks' responsibility for providing technical guidance in the general area of public works and public utilities (facilities) management, a manual for administration of housing was promulgated by the Bureau of Yards and Docks in 1957.[14] This manual contained guidance in the areas of general administration, organization and staffing, managerial concepts, occupant relations, and other material to assist the activity in effective management of the family housing assets.

Technical guidance was promulgated by the Bureau of Yards and Docks in the form of technical publications on general maintenance and utilities management. This guidance, while not directed at family housing in particular, was used by the activity Public Works Officer in carrying out the overall maintenance management program.

As mentioned earlier, the Management Bureaus did not attempt to manage family housing on a program basis. The practice of "burying" housing operation and maintenance costs in the much larger general facilities costs was acceptable as long as the annual expenditure for housing was a relatively small percentage of the overall Station Operation and Maintenance Allotment. However, with the increase in family housing inventory during the 1950's, housing costs soon became a significant portion of the activity's operation and maintenance expenditure.

---

[14]This manual was first issued under the title Housing Administration, TP-Ad-3, and has since been revised and reissued under the same title but designated NAVDOCKS P-352.

Recognizing this growing impact, several Management Bureaus, led by the Bureau of Yards and Docks and the Bureau of Naval Weapons, took steps to establish separate budgeting and cost reporting for family housing. The Bureau of Naval Weapons, in particular, allotted housing operation and maintenance funds to the activity in a budget project separate from the general Station Operation and Maintenance Allotment and required cost accounting and reporting accordingly. To provide the flexibility required by the activity, the commanding officer was given authority to reprogram funds between the general Station budget project and the housing budget project up to five per cent without reference to the Bureau. In such cases, however, cost and allotment reports to the Bureau reflected the reprogramming action taken.

While the several Bureaus were taking steps to improve the management of housing, the Department of Defense continued to emphasize the need to reorganize and revitalize our military housing program. The Secretary of the Navy's concern for the situation was indicated by the Assistant Secretary of the Navy (Material) when he commented on a proposed centralized organization for management of housing within the Navy.

> As I, and my predecessors, have discovered, we are in the unfortunate position of not knowing with any degree of certitude what our housing assets, if some of our dwellings can be called assets, are actually costing us in funds obtained from our general maintenance and operations appropriations. This is one of the drawbacks of housing as presently organized . . . [and this drawback] is particularly important when you realize that dollars used for this purpose inevitably reduce the dollars available for military hardware. . . .
>
> In November 1969 and as recently as January 29 of this year, [1960] Secretary Bryant of DOD [Department of Defense] called my attention to the strong Congressional interest

> in the management, maintenance and operation of family housing. It is my opinion that if the Navy does not properly and effectively respond to this interest, it is inevitable that the Department of Defense proposal [for an Armed Services Housing Corporation] will be reactivated or we may have unconsidered Congressional action.
>
> It is obvious that housing is of great interest and occupies a lot of the time of various Congressmen and Departmental officials. It is time, therefore, for housing in the Navy to be properly and efficiently organized in order to do a commendable job. When this is accomplished, then housing can be critically evaluated in terms of what should be its equitable share of the defense dollar and its proper and relative role in our defense posture as it affects the Navy.
>
> The advantages of such a proposed organization are self-evident. It will relieve many offices and commands of collateral responsibilities in an emotional area and grant them freedom of time for effective work in their own technical and military areas--which is their prime mission and reason for existence. This new concept will establish one spot in the Navy with the authority--and responsibility--for technical and operating management of all Navy housing. This means that there will be uniform treatment and maintenance of quarters by highly qualified specialists. Thus, there should be no longer "fat cats" and "poor cousins" in our widely scattered facilities, as now obtains under the current management bureaus. . . . This approach will give us also better cross utilization of all Navy housing and relieve the bureaus of a parochial view in this matter. And last but not least it will give us better cost data of what it is really costing us to operate our housing. . . . We can no longer afford the dubious luxury of leaving excellent vacant housing at one activity and poorly maintained fully occupied housing at another.[15]

Effective July 1, 1960, the Secretary of the Navy designated the Chief, Bureau of Yards and Docks as "Single Executive" for the operation and maintenance of all the family housing in the Navy, exclusive of housing under the management control of

---

[15]Statement by the Assistant Secretary of the Navy (Material) attached as enclosure (1) to letter from Chief, Bureau of Yards and Docks, to all District Public Works Officers, et al., May 9, 1960.

the Commandant of the Marine Corps. In implementing this management responsibility, the Bureau of Yards and Docks established a budget format and schedule of accounts for cost reporting that provided for detailed identification of the costs incurred incident to operation and maintenance, by types of housing (e.g., Wherry, Capehart, other public quarters, rental, and inadequate public quarters). Steps were taken to segregate and separately identify all housing facilities, including: the housing units proper, supporting utilities systems, grounds, parking, streets, and access roads. This real property was then transferred to a separate plant account, to be supported by allotment of Bureau of Yards and Docks funds.

Assignment of this responsibility to the Bureau of Yards and Docks provided a clear separation of family housing operation and maintenance from operation and maintenance of the other, more "mission-oriented" facilities, which would be supported, as before, by the respective Management Bureau of the activity.

Vertical Organization Extended

In 1961, while the Navy proceeded with implementing its Single Executive concept for family housing, the Services continued their clamor for more military family housing. At this time, however, the Bureau of the Budget, the General Accounting Office, and the Congress were leveling criticism at the Military Departments for requesting military housing projects at installations where the surrounding community could provide adequate housing support.

In addition, a considerable amount of criticism was aimed

at financial management. The primary concern was that, while the housing inventory had increased substantially since 1950, housing management had not advanced in proportion. Data requested at Congressional hearings had not always been available and there was little centralized guidance on program management by the Office of the Secretary of Defense or the Military Departments. The concern of Congress in this matter was manifested by the fact that the Chairman of the House Committee on Appropriations, on April 7, 1960, directed that an inquiry be made into the costs of operating and maintaining Wherry and Capehart family housing units. The report of the inquiry, submitted in January 1961, dealt in considerable depth with the broader aspects of operation and maintenance of all military family housing.[16]

In response to the criticism levied against the housing program, on September 23, 1961, the Secretary of Defense established the Advisory Panel on Military Family Housing Policies and Practices. The scope of the Advisory Panel's review covered the following six phases:

1. Requirements for military family housing.
2. Standards of housing to be provided.
3. Financing of future housing programs.
4. Management of the housing inventory.
5. Organization for housing management.
6. Legislative program for Fiscal Year 1963.[17]

---

[16]Surveys and Investigations Staff.

[17]Memorandum from Secretary of Defense to the Service Secretaries, Joint Chiefs of Staff, et al., September 23, 1961.

In carrying out its assigned mission, the Advisory Panel established specific objectives for the family housing program. These were:

1. To better develop, identify, and defend requirements.
2. To provide improved administration, management, and program control.
3. To provide cost accounting data and fiscal control.
4. To provide adequate and workable financing routes for a Defense Family Housing program.
5. To achieve more uniform standards in all phases of the program.
6. To minimize disparity between military family housing and its civilian counterpart.
7. To prudently utilize available funds and achieve economies of operation.
8. To produce uniform procedures with respect to management, construction, and operations and maintenance.
9. To recognize and accommodate the vital command relationship to family housing.[18]

After an intensive reappraisal of the existing policies and criteria governing military family housing with these objectives in mind, the Advisory Panel, on November 15, 1961, submitted its recommendations to the Secretary of Defense.

The Panel recommended "an increase in the schedule of housing allowances (BAQ) (including a new schedule classification

---

[18]U. S. Department of Defense, Report of the Advisory Panel on Military Family Housing Policies and Practices, November 15, 1961, p. 8.

for officers with three or more dependents)."[19] The Panel also recommended "adoption of a uniform family housing program within the three Military Departments."[20] The Panel acknowledged the success of the Navy's program up to that time and envisioned a management program patterned after that which existed in the Navy after July 1960. Such a system would provide valid costing data needed to respond to Congress as well as for Military management purposes.

The Panel further recommended "the establishment of a Defense Housing Management Fund as the financial management vehicle within which both the financing of construction and operation and maintenance of family housing will be administered."[21] The Panel observed that a complex pattern of appropriations, funds and accounts existed to support the housing program; and that family housing costs were buried in multi-billion dollar appropriations estimates for military pay, construction and operation and maintenance. With a single source of funds, budgeting for housing would identify all funds needed to support the military housing function.

Finally, the Panel recommended "the establishment within the Office of the Secretary of Defense of a Military Family Housing Office responsible for all aspects of the family housing program and exercising management control over the military family housing program."[22] The Panel analyzed three alternative

---

[19] Ibid., p. 9

[20] Ibid.

[21] Ibid.

[22] Ibid.

organizational patterns in an attempt to achieve maximum management effectiveness and establishment of uniformity of control and administration of Department of Defense family housing. The paramount characteristic needed to meet these objectives was considered to be centralized direction.

The three organizational proposals considered were: a Single Operating Housing Agency (such as the Defense Supply Agency); a Single Manager (management of all military housing assigned to one of the three Military Departments); and a Centralized Family Housing Organization.

Exhibit 1 shows the structure of the three organizations proposed. Exhibit 2 indicates the advantages and disadvantages of each of the three proposals. It was the conclusion of the Panel that "both the Single Operating Housing Agency and Single Manager involved major disadvantages which limit their effectiveness. While the centralized organization may not provide an entirely satisfactory solution, it would create an effective vehicle for achieving efficient program management."[23] Therefore, the Panel recommended the Centralized Family Housing Organization, shown as Alternative C on Exhibit 1.

After reviewing the Advisory Panel's recommendations, the Secretary of Defense took action to establish the Office of the Deputy Assistant Secretary of Defense (Installations and Logistics) Family Housing to provide centralized policy direction from the Department of Defense level. He then directed that each

---

[23] Appendix to the Report of the Advisory Panel, op. cit., p. H-NA 6.

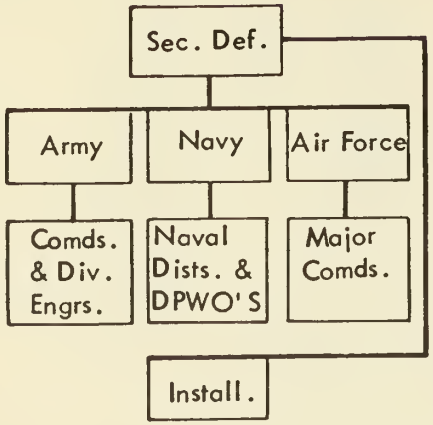
Exhibit 1

Chart VIII

ALTERNATIVE MEANS OF CENTRALIZING HOUSING

SINGLE OPERATING HOUSING AGENCY

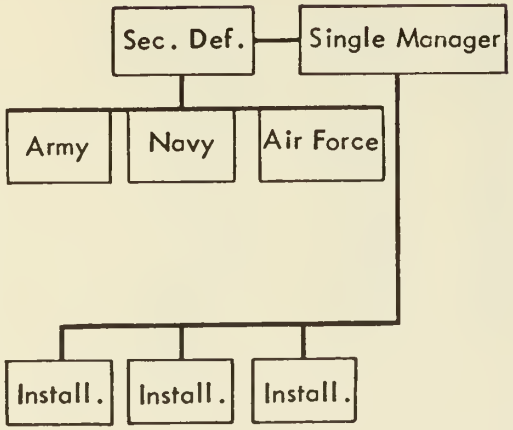
A



Housing would be operated and managed under direct control of OSD.

SINGLE MANAGER

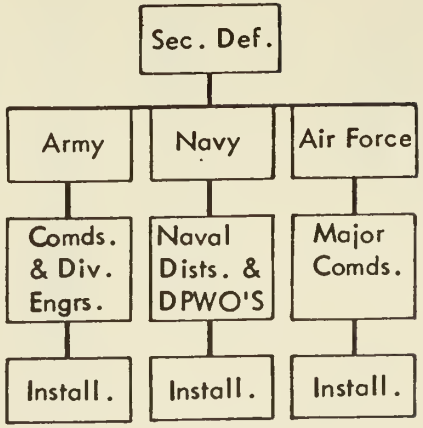
B



One service would be designated Single Manager and, acting for the Sec. Def., would exercise control & surveillance over family housing programs of three Departments.

CENTRALIZED FAMILY HOUSING ORGANIZATION

C



Normal command channels would be observed. At each level of organization, a central housing office would be established.

Exhibit 2

he advantages and disadvantages of these proposals are as follows:

ngle Operating using Agency	Single Manager	Centralized Family Housing Organization
Advantages	**Advantages**	**Advantages**
Provides centralized professional management.		. Provides centralized professional management.
Provides adequate controls.	. Provides adequate controls.	. Provides adequate controls.
Insures improved cost data.	. Insures improved cost data.	. Insures improved cost data.
Realizes substantial savings.	. Realizes substantial savings.	. Realizes substantial savings.
Creates confidence in outside agencies as to efficiency.	. Creates confidence in outside agencies as to efficiency.	. Creates confidence in outside agencies as to efficiency.
Answers all major criticisms directed by Congress, BOB & GAO.	. Answers all major criticisms directed by Congress, BOB & GAO.	. Answers all major criticisms directed by Congress, BOB & GAO.
Obtains advantages of single manager concept.		. Obtains advantages of single manager concept.
		. Does not breach military command system
Disadvantages	**Disadvantages**	. Does not duplicate mil dept. operational functions.
Breaches mil. command system.	. Breaches mil. command system.	. Does not require duplication of personnel now provided at installations
Requires duplication of personnel now provided at installations for operation of other station facilities.	. Provides for military direction and control of civilian type activity.	. Does not place OSD directly in operational activities.
Places OSD directly in operational activities.	. Because of mil. direction, leads to lack of objectivity in management and control.	

Military Department establish a centralized organization, such as Alternative C, Exhibit 1, for management of its respective family housing programs. The Secretary obtained approval from the Congress for the creation of a Department of Defense Housing Management Account for control of all funds pertinent to the Family housing program. This Management Account differed from the Panel's Management fund, being a consolidation of the monies that previously appeared in Departmental appropriations into one overall appropriation, whereas the Panel contemplated a revolving fund with income accruing outside the appropriation channels. Finally, the Secretary directed the establishment of a Department of Defense-wide uniform cost accounting system for the accumulation of operation and maintenance costs which can be clearly identified on a basis which would permit accurate comparison between Military Departments.

Thus, a vertical, functional, organization was established to provide direction and management control of the family housing program throughout the Department of Defense.

SUMMARY

With the sizeable increase in family housing inventory after World War II, management of Military housing had, by January 1960, become a big business venture. Congress, the Bureau of the Budget, and the Secretary of Defense insisted that the costs of operating and maintaining military housing be not only identified but controlled. The Advisory Panel recommended and the Secretary of Defense agreed to the establishment of a centralized organization with which to manage the Military family

housing on a program basis. In Chapter II, the Navy's manner of implementing the Secretary of Defense housing program will be presented, setting forth a view of the many faceted management system which exists today.

CHAPTER II

THE NAVY'S HOUSING MANAGEMENT SYSTEM DEFINED

The overall system which has been established for management of family housing in the Navy is structured to support the two basic functions of acquiring the additional assets needed to meet the Navy's urgent demand for housing and of operating and maintaining the assets that exist in inventory. The function of acquiring new assets encompasses:

1. Establishment of the military requirement;
2. Determination of construction criteria;
3. Programming for financing of construction;
4. Preparation of engineering plans and specifications; and
5. Execution of construction.

Lack of adequate numbers of family quarters continues to be a matter of concern to all levels of command; therefore, the Navy's system for management of family housing must be configured to carry out the foregoing functions effectively. The subject of determination of housing requirements and acquisition of additional assets is significant enough for a separate thesis and will not be covered in this paper. The main concern here will be that aspect of the management system which supports the day-to-day operation and maintenance of the family housing program.

Specifically, the management system will be defined in terms of: (1) the organization, (2) the financial management program, (3) occupancy and utilization, (4) management assistance reviews, and (5) the occupant relations program.

Organization

A simplified view of the Navy's organization for management of family housing in 1961 is shown in Exhibit 3. While there have been several changes over the past five years, Exhibit 3 remains a practical representation of the Navy's present housing management organization.

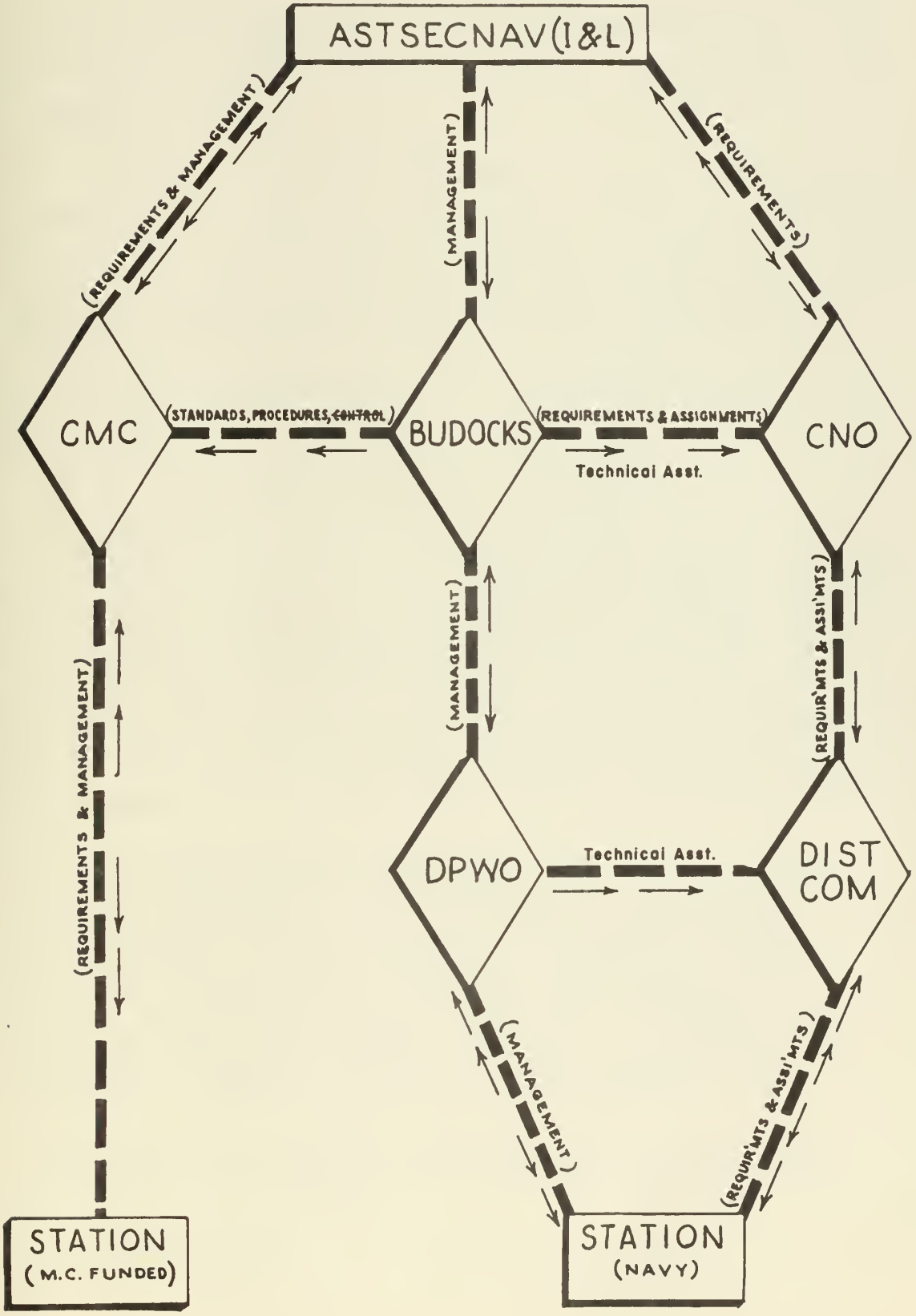
This organization plan generally fulfills the intent of the centralized type of organization as recommended by the Advisory Panel.[24] The Marine Corps program, under the direction of the Commandant, is managed on a centralized basis for both operations and maintenance effort, and for control of assignments, utilization and requirements programming. The Navy program, on the other hand, is not completely centralized, in that the activity commanding officer must work through the military command channels of the Naval District Commandant and the Chief of Naval Operations for assignments, utilization, and requirements programming, while funding and management of operation and maintenance comes from the Bureau of Yards and Docks through the Field Engineering Offices. It should be noted that Naval District Commandants receive technical support from respective Field Engineering Offices in the area of requirements, utilization, and

---

[24] Report of the Advisory Panel, op cit., p. 74.

Exhibit 3

DEPARTMENT OF NAVY
FAMILY HOUSING ORGANIZATION



assignments; and the Chief of Naval Operations receives similar support from the Bureau of Yards and Docks. This arrangement provides the advantages of a centralized organization to the maximum extent possible, short of complete centralization of all housing functions.

It can be observed from Exhibit 3 that, for the purpose of operation and maintenance management, a centralized organization does exist with a direct flow from the Assistant Secretary of the Navy (Installations and Logistics), to the Bureau of Yards and Docks, to the Field Engineering Office, and to the Field Activity.

The Secretariate Level

In the office of the Secretary of the Navy, the management of family housing falls principally to the Assistant Secretary of the Navy (Installations and Logistics). For all but the broadest policy matters, the Assistant Secretary supervises and coordinates the family housing program. Specific responsibilities include:

> (1) Policy and Coordination. The development and determination of policy and procedures to provide guidance, direction and coordination of the efforts of the Chief of Naval Operations, Commandant of the Marine Corps, Chief of the Bureau of Yards and Docks and Head of Offices of the Naval Establishment to obtain required uniformity respecting the programming, site location, acquisition, development, management, utilization and disposition of family housing and associated personal property and facilities.
>
> (2) Executive Liaison. The maintenance of executive liaison with the Congress, [and] the Office of the Secretary of the Defense, . . .
>
> (3) Requirements. The approval of military and civilian housing requirements, [and] projects for

accommodating housing requirements through assistance programs . . . .

(4) Construction. The approval of proposed family housing construction programs, projects and site locations recommended by the Chief of Naval Operations or the Commandant of the Marine Corps.

(5) Legislation. Authorization of Naval sponsorship of housing legislation . . . and associated matters.[25]

Thus, the Assistant Secretary of the Navy (Installations and Logistics) is primarily concerned with housing requirements, developing support needed to fulfill requirements, and with the family housing construction program. Management control over operation and maintenance of the Department of the Navy family housing (excluding housing at Marine Corps supported installations) is delegated to the Chief, Bureau of Yards and Docks. Figure 1 shows the relationship between the Assistant Secretary of the Navy (Installations and Logistics) and the Chief of the Bureau of Yards and Docks for purposes of housing management.

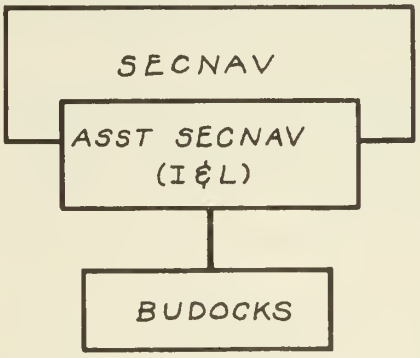


Figure 1.--Housing Management[26]

---

[25]U. S. Department of the Navy, Bureau of Yards and Docks, Housing Administration, NAVDOCKS P-352, August, 1962, p. 4-1.

[26]Ibid., p. 4-2.

Housing Organization at the Bureau of Yards and Docks Level

Specific responsibilities delegated to the Chief of the Bureau of Yards and Docks include:

(1) Executes or establishes: design, planning, standards, procurement, construction, cost estimates and inspection . . . for provision . . . of family housing . . . .

(2) Administers relations with the Federal Housing Administration, mortgagees, private management and others with respect to Title VIII [of the National Housing Act, which includes military family housing provided through the use of private financing arrangements such as Wherry and Capehart Housing] . . . [and] other housing programs, projects and operations.

(3) . . . Establishes and administers: standards of maintenance and operation; the Secretarial expenditure limitations . . . the allowances of household equipment, furniture, and furnishings, for family housing; and projects involving major renovation, alteration, and improvement of family housing, . . .

(4) Establishes inventory, cost and utilization records . . . [for] accountability . . . .

(5) Devises reporting systems . . . on the status, progress, and cost of housing facilities and programs, . . .

(6) Develops procedures and controls which will assure . . . application of sound economic and engineering principles in managing . . . family housing.

(7) Maintains plant account for . . . Navy family housing.

(8) Maintains continuous surveillance and planning studies to improve the quality and management proficiency of family housing . . . operations.

(9) Performs periodic inspections with respect to the efficiency, economy, and effectiveness of management and maintenance of family housing . . . . [This service is also provided to Marine Corps managed activities.]

(10) Provides staff support and acts as technical advisor to the Assistant Secretary of the Navy (I&L) for all matters related to family housing.

(11) Executes . . . leases for family housing . . . [and,]

(12) Compiles and analyzes recommended housing requirements; . . . supplies the Chief of Naval Operations with a summary of recommendations . . . as a basis for the annual . . . construction programs.[27]

To carry out these responsibilities at the Bureau level, the organization shown on Figure 2 has been established.

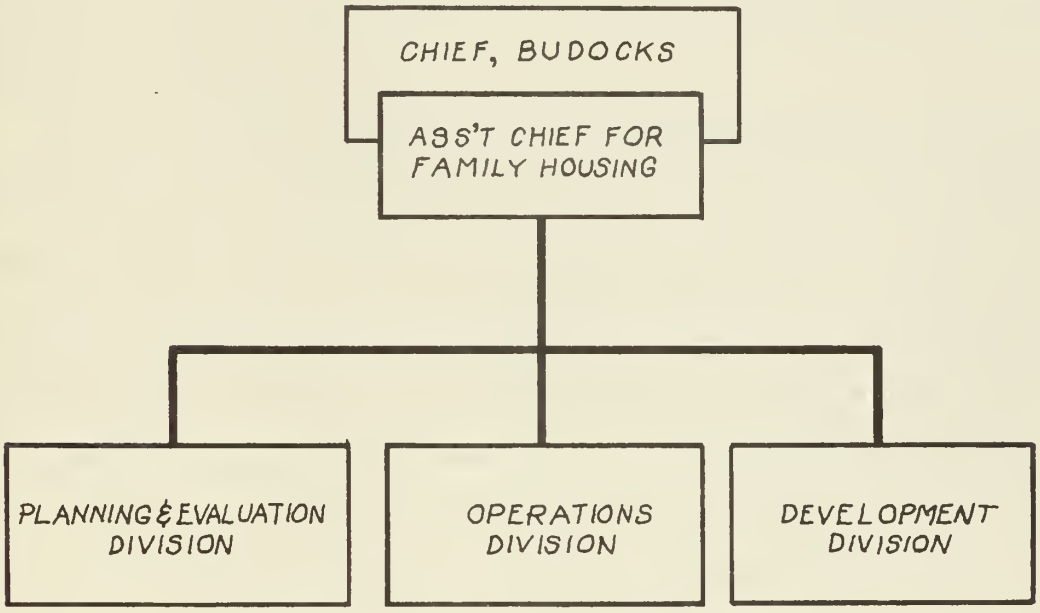


Figure 2.-- Family housing management structure within Bureau of Yards and Docks. Full relationship for the construction side of the program is not shown.

Organized under the Assistant Chief for Family Housing, are three operating divisions. The Housing Planning and Evaluation Division works horizontally at the Bureau level and vertically within the Navy Department and the Department of Defense to formulate and promulgate general policies, procedures and guides. The Division provides for continuing and undivided

---

[27] Ibid., p. 4-1 and 4-2.

attention to planning, progressing, evaluating, and achieving Navy objectives on a program-wide basis. The Housing Operations Division works vertically among the Bureau, the Office of the Secretary of Defense, the Bureau of the Budget, and the field in administering existing family housing assets. This Division is concerned with executing and appraising actual management operations in the field. The Housing Development Division is concerned with development and execution of the family housing construction program.

Each Division represents line responsibility for distinct types of workload. This distribution of functions frees personnel who are concerned with field operations from the time-consuming liaison, studies, and discussions which go into formulation of general policy, while at the same time it provides "for continuing responsibility and attention to the development of management studies, aids, and techniques to improve the supervision of management at the successive levels."[28]

Housing Organization at the Field Engineering Office Level

The Field Engineering Officers represent and act "for the Chief of the Bureau of Yards and Docks in the management of family housing."[29] The general relationships between commands in the field are shown on Figure 3. Occupying the position of "middle management," the Field Engineering Office, through its

---

[28]Policy brief attached as enclosure (3) to letter from Chief, Bureau of Yards and Docks to all District Public Works Officers, May 9, 1960.

[29]Housing Administration, op. cit., p. 4-5.

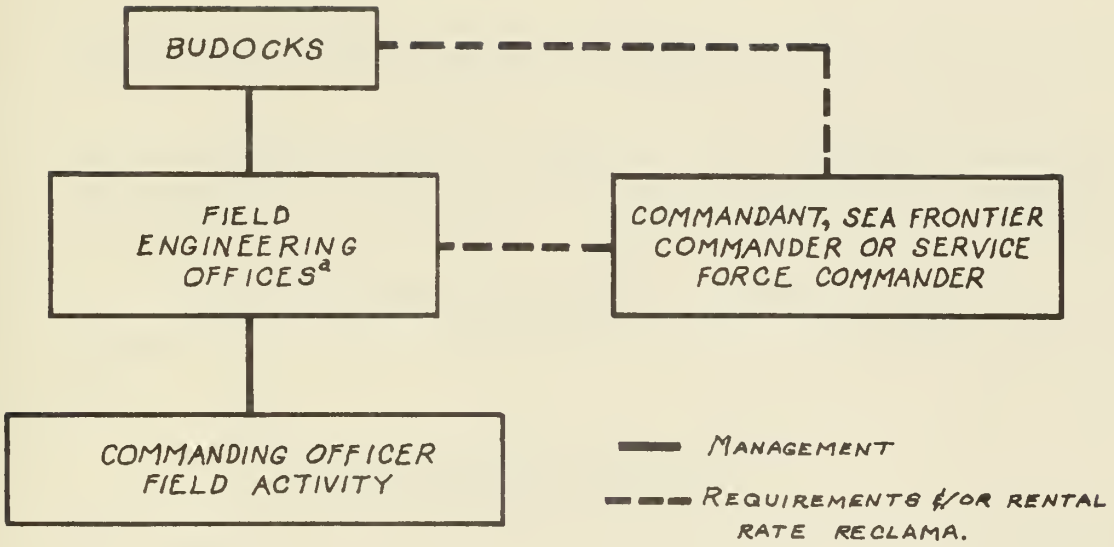


Figure 3.--Relationship between Commands.[30]

[a]There are 16 Field Engineering Offices which include the District Public Works Offices, Area Public Works Offices, and the Bureau of Yards and Docks Field Divisions.

Housing Division, furnishes technical and management guidance and direction to the activity commanding officers in the overall administration of the family housing program. Commencing in Fiscal Year 1965, the Field Engineering Offices also assumed full responsibility for administration of funding the operation and maintenance monies to their Field Activities. Additional responsibilities include:

(1) Review of housing operations to ensure conformance with established policies, directives, regulations and Bureau-established funding limitations.

(2) Guide and assist activities in developing, establishing and implementing activity programs and

---

[30]Ibid.

procedures for the management, operation and maintenance of Navy family housing.

(3) Review and comment, with appropriate recommendations, on activity budget requests.

(4) Establish rental and utility rates and related charges for rental housing facilities.

(5) Review, comment and provide recommendations on cost estimates and the technical and economic propriety of proposed special projects involving the major repair, alteration, . . . and . . . improvement of . . . housing.

(6) Redistribution of excess family housing furniture and collateral equipment within the district or area.[31]

Housing Organization at the Field Activity Level

The organization at the Field Activity level varies from activity to activity, depending upon the number, type and dispersion of the family quarters available for assignment and occupancy. The Bureau has established basic guidelines for staffing of small, medium and large activities.[32] In a small activity, housing management functions can normally be performed on a part-time basis. At a large activity, there will be need for a supervisory housing project manager, several management aides, as well as a clerical staff, all of whom would be organized generally in the pattern indicated on Figure 4.

A number of specific responsibilities are assigned to the Commanding Officer and his staff. The station responsibilities

---

[31] Ibid.

[32] The guidelines refer to the number of family housing units at an activity; forty or less units is a small activity, between forty and five hundred is a medium activity and over five hundred is a large activity.

can be summarized briefly as the efficient management of available resources and the maximum utilization of housing assets.

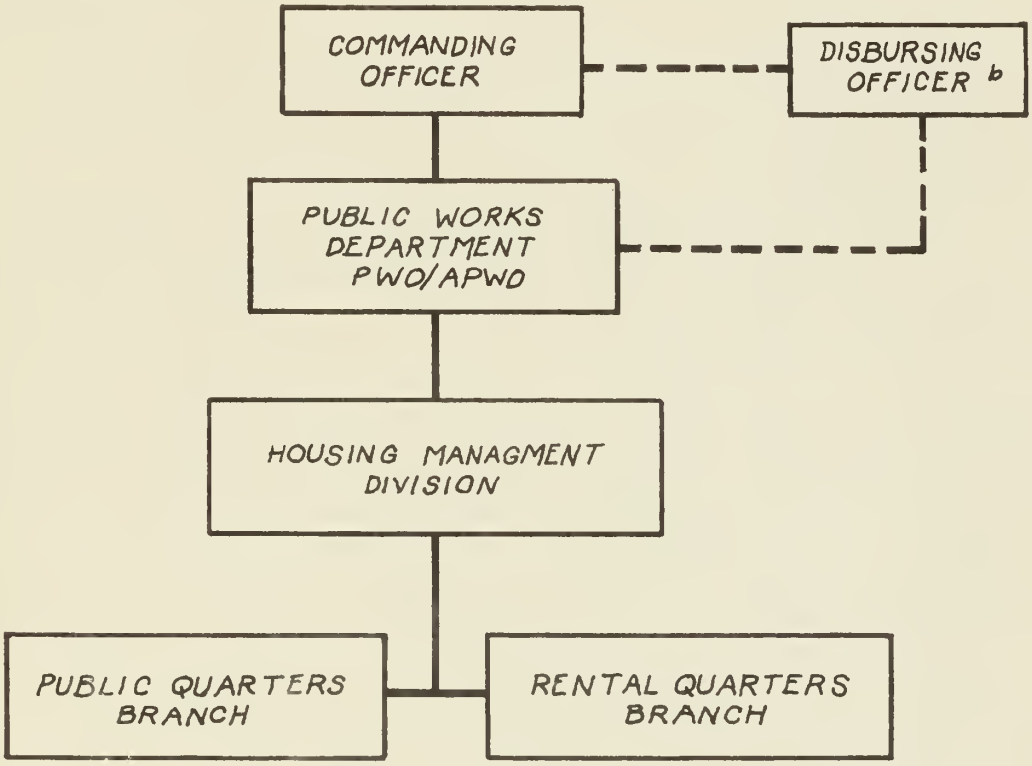


Figure 4.--Family Housing Organization at the Field Activity.[33]

[b]Coordination of BAQ forfeiture.

Financial Management Program

Financial management--the control of available dollar resources--is one of the most powerful aids at the disposal of the housing management staff. The program for financial management is comprised of the three basic functions of planning, budgeting, and cost control.

---

[33]Housing Administration, op. cit., p. 4-7.

Work Planning

The major costs involved in a family housing project result from the need for maintenance and repair of real property, maintenance of grounds and ground structures, and from utilities consumption.

The Navy's policy is to maintain its family housing facilities at "a level which will provide an adequate home for the occupants . . . at the lowest possible cost which is consistent with the preservation of plant investment for the anticipated economical life . . . and requirement for the facility." (Underlining mine.)[34] To achieve this standard as uniformly as possible, the Bureau of Yards and Docks has established a basic set of maintenance criteria for the guidance of the field. In addition, to provide an effective means of programming for the funds needed to support a minimum standard of maintenance, field activities are enjoined to establish a sound long range maintenance plan and a comprehensive short term maintenance plan for each dwelling unit in their inventories. Besides the criteria mentioned, maintenance planning must give consideration to the following factors:

> (1) Age and Type of Construction. A maintenance plan . . . shall be developed specifically for the remaining useful life of each . . . unit and shall be correlated to the remaining useful life of the several major components . . . such as the roof . . . . In no case shall major repair . . . costs be incurred which are inconsistent with the economic life of the unit or its major components.
>
> (2) Anticipated Use Period. Irrespective of the economic useful life of a facility, maintenance and

---

[34] Ibid., p. 10-1.

> repair costs shall be consistent with the anticipated use of the structure . . . as projected by the assigned mission and task of the activity . . . .
>
> (3) Basic Considerations. The maintenance plan . . . shall ensure the protection of the government's investment in the facilities involved. Expenditure of maintenance funds solely on the basis of the rank or billet of the occupant . . . is . . . prohibited.[35]

The objective of the maintenance plan is to identify and summarize the true and essential dollar support required to provide decent family housing consistent with the unexpired life of the facility. Utilization of performance standards developed by industrial engineering techniques to arrive at the dollars required to carry out the work makes the maintenance plan a valuable tool for both management and budgeting. An example of a typical long range maintenance plan covering a period of fifteen years is shown on Exhibit 4.

In addition to sound maintenance planning, it is necessary to plan for utilities costs; this is best accomplished through an aggressive conservation program and by establishing targets for utilities consumption.

The Budget Process

Budgeting for the operation and maintenance of family housing is an annual function and as such comes under close scrutiny of the Secretary of Defense, the Bureau of the Budget, the President, and the Congress. The Bureau of Yards and Docks has a policy of decentralized budget preparation, review, and execution. This policy can be stated as follows:

---

[35] Ibid., p. 10-2.

Exhibit 4

Long Range Maintenance Plan – Family Housing

(STATION _____) (PROJECT TITLE)

BLDG. # _____ UNIT _____ TYPE _____

	NEW	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
Interior Painting		CO		I		XI		I		XI		I		XI		
Refinish Wood Floors		CO				I		XI						XI		
Asphalt Tile Replacement		CO				I				I		XI				
Hot Water Heater Replacement		CO				I				I				XI		
Exterior Caulking		CO				XI					XI					
Exterior Painting		CO				XI					XI					
Roof Replacement		CO											I	XI		
Point Exterior Brickwork																
Furnace (Overhaul or Replacement)																

CODING: I = Inspection, X = Scheduled for Accomplishment, C = Change of Occupancy, O = Accomplishment.

> With decentralization of the . . . housing budget programs . . . in 1965 . . . FEOs [Field Engineering Offices] will receive funds and overall policy guidance from the Bureau. FEOs will be the point of contact for all field activities; FEOs will call for and analyze field budget estimates, determine and assign Annual Planning Figures, allot funds and effect funding adjustments at their discretion in response to field activity requests.[36]

While there have been a number of changes since Fiscal Year 1961, the budget format has been essentially the same as that shown on Exhibit 5. The principle feature of this budget presentation is the breakdown of operations and maintenance into the specific types of effort that are categorized by the four-digit "budget line code" classifications shown in column 1.[37] There are several other important features of the budget format. It includes a report of past year's obligations (for the fiscal year during which the estimate is prepared) based upon an approximate nine month period and a projection of estimated obligations for the final quarter. The section for current year cost element provides for a detail of the costs to be expected during the following fiscal year by budget line code broken down further by the manner in which the costs will be incurred (e.g., labor, material, or contract). Columns 12 and 13 provide space for the Field Engineering Office budget review markup by line code.

---

[36]U. S. Department of the Navy, Bureau of Yards and Docks, BUDOCKS NOTICE 7110, March 2, 1964.

[37]These housing budget line code classifications do not coincide directly with the Navy expenditure account number (EAN) system. Some line codes require subdividing a given EAN through the use of job orders, and other line codes require grouping of two or more EANs to comprehend the totals for a given line code.

NAVDOCKS 2755'(REV. 1-64)

ANNUAL BUDGET ESTIMATE FOR MAINTENANCE AND OPERATIONS OF FAMILY HOUSING

REPORT BUDOCKS 7110-11

ACTIVITY NAME AND LOCATION	ACT. ACCT. NO.	ACT. SNDL NO.	NAV. DIST.	MGMT. BUR.	APPROP. SYMBOL AND SUBHEAD	ACT. ACCT. NO. *(Holder of Plant Acct, if different)*	BUR. ALLOT. NO.	PAST YEAR'S ALLOT. NO.	PLANNED ACQUISITIONS AND/OR DISPOSALS

CATEGORY OF HOUSING *(Check only one type)*

	ENCUMBERED HOUSING		OTHER PUBLIC QUARTERS
	SUB-STANDARD HOUSING		LEASED QUARTERS
	FUNO PUBLIC QUARTERS CONSTRUCTED 1950 AND SUBSEQUENT YEARS		

NO. OF UNITS BY CATEGORY CODE

CODE	UNITS

NAMES OF HOUSING PROJECTS INCLUDED

TO: CHIEF, BUREAU OF YARDS AND DOCKS

LINE CODE	COST CLASSIFICATION	PAST YEAR'S OBLIGATION	CURRENT YEAR COST ELEMENT: MAN YEARS	LABOR COSTS	SURCHARGE OR NIF ACCELERATION	MATERIAL COSTS	CONTRACT COSTS	GENERAL AND ADMINISTRATIVE OVERHEAD	AUTOMOTIVE & CONSTRUCTION EQUIP. COSTS	TOTAL COSTS	ADVANCE TARGET	ALLOWED	14
		3	4	5	6	7	8	9	10	11	12	13	
1000	**OPERATIONS** *(Total Lines 1100, 1200, 1300 & 1400)*												
1100	**ADMINISTRATION** *(Total)*												
1110	MANAGEMENT												
1120	LEAVE AND FRINGE BENEFITS												
1130	OTHER *(Explain fully)*												
1200	**UTILITY OPERATIONS** *(Total)*												
1210	ELECTRICITY												
1220	GAS												
1230	FUEL OIL												
1240	WATER												
1250	SEWAGE												
1260	OTHER *(Explain fully)*												
1300	**SERVICES** *(Total)*												
1310	REFUSE COLLECTION AND DISPOSAL												
1320	FIRE PROTECTION												
1330	POLICE PROTECTION												
1340	MISCELLANEOUS *(Sub-Total)*												
1341	PEST AND RODENT CONTROL												
1342	CUSTODIAL (COMMON AREAS)												
1343	SNOW REMOVAL/STREET CLEANING												
1344	OTHER *(Explain fully)*												
1400	**FURNITURE AND EQUIPMENT** *(Total)*												
1410	FURNITURE: MAINTENANCE AND REPAIR												
1420	INITIAL OUTFITTING NEW UNITS.												
1430	REPLACEMENT												
1440	HANDLING, STORAGE AND SHIPMENT												
1450	EQUIPMENT: HANDLING, STORAGE AND SHIPMENT												
2000	**MAINTENANCE OF REAL PROPERTY** *(Total of Lines 2100, 2200 and 2300)*												
2100	MAINT. & REPAIR OF DWELLING UNIT *(Total)*												
2110	STRUCTURE												
2120	JANITORIAL (REFURBISHING AND REPAIR)												
2130	INTERIOR PAINTING												
2140	EXTERIOR PAINTING												
2150	INTERIOR UTILITIES												
2160	MAINTENANCE, REPAIR AND REPLACEMENT OF EQUIPMENT (MAJOR HOUSEHOLD APPLIANCES)												
2200	**MAINTENANCE & REPAIR OF OTHER PROPERTY** *(Total)*												
2210	EXTERIOR UTILITIES												
2220	GROUNDS												
2230	SURFACED AREAS												
2240	OTHER *(Explain fully)*												
2300	**INCIDENTAL CONSTRUCTION, ALTERATIONS, & IMPROVEMENTS (FROM O & M FUNDS)**												
3000	**LEASED HOUSING (RENTAL COSTS ONLY)**		X X X X	X X X X	X X X X	X X X X		X X X X	X X X X				

		REQUESTED	ALLOWED
6000	**ANTICIPATED REIMBURSEMENTS EARNED** *(Total)*		
6100	UTILITIES FOR WHICH OCCUPANTS ARE CHARGED		
6200	FROM OTHER GOVERNMENT AGENCIES (EXCEPT 000)		
6300	SERVICES TO PRIVATE PARTIES		
6400	OTHER *(Explain fully)*		
7000	**TOTAL OPERATIONS - MUST AGREE WITH LINE 1000**		
7100	DIRECT FUNDS - OPERATIONS *(Line 1000 minus Line 6000)*		
8000	**DIRECT FUNDS - LEASING - MUST AGREE WITH LINE 3000**		
9000	**DIRECT FUNDS - MAINT. - MUST AGREE WITH LINE 2000**		

PERCENTAGE OF FUNDS REQUIRED BY QUARTERS

CATEGORY OF EXPENSE	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
REIMBURSEMENTS *(Line 6000)*				
OPERATIONS *(Line 7100)*				
MAINTENANCE *(Line 9000)*				

I certify that this request for funds covers only those expenses which are authorized by statute and/or DOD, SECNAV, AND BUDOCKS Instructions and that no expenditures will be incurred which are in violation of any of these instruments.

COMMANDING OFFICER (Name and Rank) *(Date)*

Exhibit 5 (continued)

ACTIVITY:

SUPPORTING STATISTICAL DATA

ITEM	PAST YEAR 19____.	CURRENT YEAR 19____.	BUDGET YEAR 19____.
	Dollars	Dollars	Dollars
REVENUE AND BAQ FORFEITURE:			
A. SHELTER			
B. UTILITIES			
C. FURNITURE			
O. OTHER			
E. TOTAL			
TOTAL EXPENSES *(All costs)*			
PROFIT OR LOSS			
COST PER UNIT PER MONTH			

FAMILY HOUSING UNITS

TYPE OF HOUSING	PAST YEAR 19____.	CURRENT YEAR 19____.	BUDGET YEAR 19____.
TOTAL NUMBER OF UNITS *(Must agree with Form DD 1410 for 31 December)*			
ESTIMATED CHANGES IN NUMBER OF UNITS LAST HALF OF YEAR ±			
NUMBER UNITS FORECAST			
TOTAL NUMBER FURNISHED			
ANTICIPATED CHANGE IN OCCUPANCY			
ANNUAL AVERAGE NO. UNITS MAINTAINED			
TOTAL UNITS OCCUPIED			
A. OFFICER			
B. ENLISTED			
C. CIVILIAN			
D. OTHER DOD SERVICES			
E. COAST GUARD			
F. OTHER			
TOTAL OCCUPANCY			
NO. UNUSED/ABANDONED UNITS			
AREA OF GROUNDS *(Acres)*			
PAVED AREAS *(Sq. Ft.)*			

BACKLOG OF ESSENTIAL MAINTENANCE:

1. THE LATEST TYPE "A" ANNUAL INSPECTION SUMMARY AS OF (DATE)_____. SHOWS A HOUSING BACKLOG OF ESSENTIAL MAINTENANCE OF ..... $_____.

2. SINCE THE DATE OF THE LAST SUMMARY, AS NOTED ABOVE, THE BACKLOG OF ESSENTIAL MAINTENANCE HAS BEEN REDUCED IN THE AMOUNT OF .....$_____

3. AMOUNT OF REMAINING BACKLOG WHICH CAN BE ELIMINATED BY THE FUNDS REQUESTED IN THIS BUDGET .....$_____

4. AMOUNT OF BACKLOG COVERED BY CURRENT REPAIR PROJECTS.....$_____ *(Identify by Project Number)*

5. DOES THE TOTAL OF LINES 2, 3, AND 4, EQUAL THE AMOUNT SHOWN ON LINE 1? ( ) YES ( ) NO *If no, explain fully.*

SUMMARY OF BUDGET ESTIMATE BY OBJECT CLASSIFICATION

OBJECT CLASSIFICATION	PAST YEAR 19____.	CURRENT YEAR 19____.	BUDGET YEAR 19____.
	Dollars	Dollars	Dollars
10 - PERSONAL SERVICES AND BENEFITS *(Total)*			
11 - PERSONNEL COMPENSATION			
12 - PERSONNEL BENEFITS			
13 - BENEFITS FOR FORMER PERSONNEL			
20 - CONTRACTUAL SERVICES AND SUPPLIES *(Total)*			
21 - TRAVEL AND TRANSPORTATION OF PERSONS			
22 - TRANSPORTATION OF THINGS			
23 - RENT, COMMUNICATIONS, AND UTILITIES			
24 - PRINTING AND REPRODUCTION			
25 - OTHER SERVICES			
26 - SUPPLIES AND MATERIALS			
30 - ACQUISITION OF CAPITAL ASSETS *(Total)*			
31 - EQUIPMENT			
32 - LANDS AND STRUCTURES			
33 - INVESTMENTS AND LOANS			
40 - GRANTS AND FIXED CHARGES *(Total)*			
41 - GRANTS, SUBSIDIES, & CONTRIBUTIONS			
42 - INSURANCE CLAIMS, & INDEMNITIES			
43 - INTEREST AND DIVIDENDS			
44 - REFUNDS			
TOTAL - ALL OBJECT CLASSIFICATION			

MANPOWER SUMMARY

ITEM	PAST YEAR 19____.		CURRENT YEAR 19____.		BUDGET YEAR 19____.	
	MAN-YEARS	LABOR COST	MAN-YEARS	LABOR COST	MAN-YEARS	LABOR COST
		Dollars		Dollars		Dollars
TOTAL GRADED AND GRADED TYPES						
TOTAL UNGRADED						
U. S. CITIZENS: A. GRADED						
B. UNGRADED						
NON-CITIZENS: A. GRADED						
B. UNGRADED						
CONTRACT LABOR						
OVERTIME *(Included in entries above)*	( )	( )	( )	( )	( )	( )
MILITARY PERSONNEL PERFORMING PW FUNCTIONS						

At the bottom of Sheet 1, provision is made for the activity to indicate in the quarterly schedule the time when funds will be required in each of three budget projects: (1) reimbursement, (2) operations, and (3) maintenance. This allows for an obligation-rate other than straight-line, as may be required due to seasonal variations in utilities consumption and changes in occupancy, with the attending maintenance efforts.

Sheet 2 provides for a recapitulation of estimates for the past and current years as well as a statement of budget year estimates in terms of "object classifications" as required by Congress. Sheet 2 also provides space to indicate detailed information on changes of occupancy for the past, current, and budget year--the number of changes of occupancy being one of the principle indicators of the amount of maintenance effort that is required in a given fiscal year.

Finally, sheet 2 of the budget form provides for a representation of the private enterprise type profit and loss statement by tabulating the total expected income from shelter rents, utilities charges, furniture rentals, and basic allowance for quarters forfeitures for comparison with the total expected operation and maintenance expenses for the period. This statement is particularly significant for substandard quarters, since an indication of loss would be cause to deactivate and dispose of quarters in this category.

Inasmuch as costs of operating and maintaining family housing are closely related to the type, size, and age of the quarters, the Navy housing assets have been divided into five

categories, as indicated on Exhibit 6, for the purpose of budgeting, cost, and other statistical reporting. The budget call requires a separate budget form be submitted for each category as well as a summary showing overall activity totals for all categories of housing supported.

Activity budgets are prepared using known maintenance backlog information, estimated changes of occupancy, projected utilities and other services consumption data, and a tentative annual planning figure as provided by the Field Engineering Office. After reviewing and marking up the activity budgets, the Field Engineering Office prepares a consolidated budget for presentation to the Bureau of Yards and Docks. The Bureau then reviews and consolidates the Field Engineering Office submittals into an overall Navy fund requirement for processing through channels to support appropriations action by Congress. The Bureau representatives present and defend this housing budget in the Office of the Secretary of Defense and Bureau of the Budget reviews.

In budget execution, funds are suballocated to the Field Engineering Offices by budget project for operation, maintenance, and reimbursibles.[38] The Field Engineering Office allots funds to the activities in these same budget projects. In executing the budget, an activity has no authority to transfer funds between budget projects without prior approval of the Field Engineering

---

[38]Income from utilities charges in rental quarters may be used to finance the cost of utilities services as well as maintenance of utility distribution systems. This financing is processed through the mechanism of the budget project for reimbursibles.

Office. While no direct control exists to require expenditure of funds in a manner consistent with the budget line code submittal (or as programmed by category), the activity is expected to use its funds to support the functions for which they were budgeted. Actual use of funds is monitored by the cost reports discussed in the next section.

Cost Control and Standards

In the budget execution stage of any program, objectives are accomplished by the use of human and other resources through the following three steps:[39]

1. Ordering or contracting for resources.
2. Fulfilling contractural terms.
   a. Receiving resources.
   b. Paying for resources.
3. Using resources needed.

The variety of data required by the several levels of management has led to the establishment of the following bases for reporting progress--(1) obligation, (2) expenditure, and (3) cost.

> 1. Obligation Basis.-- Since the first step committing the government occurs when a contract or order is placed with a supplier, control is needed at this point. . . . From a control standpoint, therefore, appropriations should be on an obligation basis.
>
> 2. Expenditure Basis.--Expenditures measure fulfillment of contractural terms. Under the cash system, they represent payments made; under an accrual system,

---

[39]E. Reese Harrill, "A Unified System of Governmental Accounts," The Federal Accountant, XIV, Number 2 (Winter, 1964), p. 6.

> they represent the emergence of definite liabilities for goods and services received. . . .
>
> 3. Cost Basis.--Costs accrue as resources are used in performing a task, producing a product or providing a service. The cost basis measures resources used and thus provides the best means of measuring program progress. If all of the materials and supplies for a building, for example, had been ordered, delivered and paid for, but none had yet been used, construction would not have advanced physically. The expenditure basis of maintaining program accounts would, under these conditions, indicate substantial progress while the cost basis would accurately reflect the fact that, none of the materials and supplies having been used, no physical progress had occurred. . . . (Underlining mine.)[40]

It can be seen here that cost accounting is highly regarded as a basis for reporting program progress.

The Cost Control System.--The need for accumulating cost information as a means of controlling government operations was re-emphasized by the reports of both Hoover Commissions. As indicated in Chapter I, one of the principle findings of the Advisory Panel was the fact that a uniform system of cost accounting did not exist in the three Military Departments. Lack of such a system made comparison of the performance of the Military Departments impossible. Accordingly, the Assistant Secretary of Defense (Installations and Logistics) appointed two task forces: one, to develop a set of cost criteria which would reflect the total cost of operating and maintaining all military family housing;[41] and the second, to develop proposed changes to the

---

[40] Ibid., p. 6-7.

[41] U. S. Department of Defense, Office of the Assistant Secretary of Defense (Installations and Logistics), Family Housing Task Force Report on Uniform Cost Criteria, February, 1962, p. 1. The discussions of the concept of total cost involved consideration of various kinds of primary or direct costs and various kinds of secondary or indirect costs. Primary costs (susceptible of

respective Departmental accounting systems that would provide for accumulation of costs on a uniform basis and facilitate valid comparisons of performance.[42]

The resulting uniform cost accounting system for family housing was implemented by the Military Departments for Fiscal Year 1963,[43] but was later revised and simplified to the present form for Fiscal Year 1965.[44] The Navy cost system presently requires field activity collection of cost information in the classifications as shown on Exhibit 7 for each of the five categories of housing supported, as well as non-category costs.[45] Activities must report accrued costs on a quarterly basis, and the Bureau submits a consolidated report to the Office of the Secretary of Defense semi-annually. Since the Navy's accounting

---

immediate and specific identification) can be related directly to the function of operation and maintenance of the family housing program. Secondary costs, being difficult to identify and subject to manipulation, were not considered valid costs unless specifically identifiable with the individual program of activity. (Example: Added increment of a fire department, organized for the specific purpose of supporting housing).

[42]U. S. Department of Defense, Office of the Assistant Secretary of Defense (Comptroller), Family Housing Task Force Report on Uniform Cost Accounting, March 1962, p. 1.

[43]Memorandum from Assistant Secretary of Defense (Comptroller) to the Service Secretaries (Financial Management), March 17, 1962.

[44]U. S. Department of Defense, DOD INSTRUCTION 7220.16, May 18, 1964. The Navy implemented the revision by NAVCOMPT INSTRUCTION 11101.7B, July 29, 1964.

[45]Non-category costs are those incurred in: (1) outfitting and handling furniture and equipment provided to personnel occupying housing overseas on a private rental basis; (2) operating and maintaining trailer sites; and (3) other costs, chargeable to operation and maintenance of family housing, but not applicable to any of the five categories.

FAMILY HOUSING OPERATION AND MAINTENANCE COST REPORT

NAVCOMPT FORM 2100 (REV. 7-64)

NAVCOMPT 11101-1

HOUSING ACTIVITY	REPORTING FISCAL OFFICE	REPORTING PERIOD	TOTAL NUMBER OWELLING UNITS	HOUSING POPULATION	TOTAL SQUARE FEET *(Thousands)*

☐ ENCUMBERED HOUSING ☐ APPROPRIATED FUND HOUSING 1950 AND AFTER ☐ LEASED HOUSING ☐ OTHER PUBLIC QUARTERS ☐ SUBSTANDARD HOUSING ☐ NONCATEGORY COSTS ☐ SUMMARY

LINE NO.	COST CLASSIFICATION (1)	CIVILIAN LABOR (2)	MATERIAL (3)	OTHER (4)	TOTAL FUNDED COSTS (5)	MILITARY LABOR (6)	TOTAL COSTS (7)	UNITS OF MEASURE (8)	NUMBER OF UNITS (9)	UNIT COST (10)
1	HOUSING PROCURED FROM NON-000 SOURCES									
1a	LEASED HOUSING *(Private, FHA and VA)*							NO. OWELLING UNITS		
1b	OTHER GOVERNMENT AGENCIES							ND. DWELLING UNITS		
2	ADMINISTRATION									
3	SERVICES									
3a	REFUSE COLLECTION AND DISPOSAL							CUBIC YAROS		
3b	FIRE PROTECTION							ND. FIREFIGHTERS		
3c	POLICE PROTECTION									
3d	OTHER SERVICES									
4	UTILITY OPERATIONS									
4a	ELECTRICITY							KWH *(Thous.)*		
4b	GAS							CUBIC FEET *(Thous.)*		
4c	FUEL OIL							GALLONS *(Thous.)*		
4d	WATER							GALLONS *(Thous.)*		
4e	SEWAGE							GALLONS *(Thous.)*		
4f	OTHER UTILITIES AND FUEL									
5	FURNITURE AND FURNISHINGS									
5a	MAINTENANCE AND REPAIR									
5b	MOVING AND HANDLING									
5c	INITIAL OUTFITTING AND REPLACEMENT									
	TOTAL OPERATION COSTS									
6	DWELLINGS									
6a	STRUCTURE, EXTERIOR							SQUARE FT. *(Thous.)*		
6b	STRUCTURE, INTERIOR							SQUARE FT. *(Thous.)*		
6c	PAINTING, EXTERIOR							SQUARES		
6d	PAINTING, INTERIOR							SQUARES		
6e	INTERIOR UTILITIES									
6f	MOVABLE EQUIPMENT, MAINTENANCE AND REPAIR									
6g	MOVABLE EQUIPMENT, REPLACEMENT									
7	OTHER REAL PROPERTY									
7a	EXTERIOR UTILITIES									
7b	GROUNDS							ACRES		
7c	SURFACED AREAS							SQUARE YDS. *(Thous.)*		
7d	OTHER									
8	ALTERATIONS AND ADDITIONS									
	TOTAL MAINTENANCE COSTS									
	TOTAL OPERATION AND MAINTENANCE COSTS									

(Real Property Facilities)

RECONCILIATION OPERATION/MAINTENANCE COSTS TO CURRENT FISCAL YEAR ALLOTMENT OBLIGATIONS	OPERATION	MAINTENANCE
1. TOTAL FUNDED COSTS (NAVCOMPT FORM 2100 REPORTS)		
2. PLUS: UNDELIVERED ORDERS (END OF PERIOD) CURRENT FISCAL YEAR FUNDS		
3. MINUS: CHANGES IN UNDELIVERED ORDERS - PRIOR FISCAL YEAR FUNDS		
4. OBLIGATION ADJUSTMENTS - (INCREASE) OR DECREASE, TO PRIOR F.Y. FUNDS OBLIGATIONS		
5. EQUAL: TOTAL OPERATION/MAINTENANCE OBLIGATIONS REPORTED ON NAVCOMPT FORM 2025 - CURRENT FISCAL YEAR FUNDS		

D-5228

system makes no provision for obtaining accrued costs directly, field activities must obtain these by estimating the adjustments to be applied to cost records for material or contract effort costed and not yet placed, or placed and not yet costed.

Use of Standard Costs.--Once a uniform system of cost collection and reporting was implemented, the next step was to analyze the information collected and to develop standards with which to measure the performance of management at all levels of each Military Department. To do this, a cost study was conducted by the Office of the Deputy Assistant Secretary of Defense (Installations and Logistics) Family Housing.

This study employed a statistical method known as Frequency Distribution Analysis, which groups cost data according to range and estimates of the mean and standard deviation from the mean. The sample included data from 40 Army, 60 Navy, and 60 Air Force installations selected at random except that the number from each Department was chosen to provide for the best possible mix of housing categories.[46]

The cost standards developed by this study are shown on Exhibit 8. The Office of the Secretary of Defense labeled these cost standards acceptable cost ranges.

> . . . To provide targets or bench marks for evaluating efficiency of performance . . . for giving priority to the investigational effort and . . . corrective action. . . .
>
> [Having been] developed on the basis of historical costs, modified . . . by industrial engineering

---

[46]Personal interview with CDR B. F. Burch, CEC, USN, Office of the Deputy Assistant Secretary of Defense (Installations and Logistics) Family Housing, November 27, 1964.

Exhibit 8

ACCEPTABLE COST RANGES FOR O&M OF FAMILY HOUSING*
(Dollars/Dwelling Unit/Year)

Cost Category	ENCUMBERED Low Limit	ENCUMBERED Mid Point	ENCUMBERED High Limit	INADEQUATE Low Limit	INADEQUATE Mid Point	INADEQUATE High Limit	OTHER PUBLIC QUARTERS Low Limit	OTHER PUBLIC QUARTERS Mid Point	OTHER PUBLIC QUARTERS High Limit
Administrative	22	42	64	25	50	75	17	50	72
Maint. & Repair - Dwelling Unit	97	174	251	47	162	267	319	619	949
Structure	25	74	113	12	82	152	115	298	481
Painting	16	55	94	10	35	60	77	205	333
Interior Utilities	17	45	62	10	45	80	54	116	178
Maint. & Repair - Other Property	17	54	91	10	41	72	25	109	190
Exterior Utilities	4	16	28	4	11	18	5	31	57
Grounds	5	24	43	6	16	30	16	52	88
Surfaced Areas	0	6	13	1	6	11	1	6	11
Other	0	8	13	2	8	14	5	20	40
Services	19	33	47	19	33	47	10	53	97
Refuse Collection & Disposal	11	21	31	11	21	31	11	33	43
Fire Protection	-	-	-	-	-	-	-	-	-
Police Protection	-	-	-	-	-	-	-	-	-
Other	2	9	18	2	9	18	5	20	35
Utility Operations	158	250	342	58	158	258	175	314	453
Electricity	51	115	179	27	72	117	62	116	170
Gas	41	84	127	13	47	81	28	76	124
Fuel Oil	28	71	114	19	69	129	49	122	195
Water	8	24	40	5	19	33	11	32	53
Sewage	3	12	21	3	12	21	3	15	24
Other	-	-	-	-	-	-	-	-	-
Furniture and Equipment	30	65	100	11	49	87	62	127	192
Furniture	8	38	68	8	28	48	38	80	122
Maint. and Repair	8	17	34	2	14	28	10	40	70
Handling and Storage	4	17	40	2	15	29	5	25	45
Initial outfitting & Repl.	-	-	-	-	-	-	7	27	47
Equipment	10	27	44	2	19	36	9	47	85
Maint. and Repair	5	17	29	2	14	27	11	37	57
Handling and Storage	-	-	-	-	-	-	-	-	-
Replacement	-	-	-	-	-	-	-	-	-
Total -	428	618	808	315	493	691	422	1272	2122

* Applicable to installations only within the conterminous U.S.

I&L(FS)
7/15/64

> techniques and engineered judgment factors, . . . [these standards] share the potential failings of any standard developed on this basis; and while they are intended to be a management tool, they should not be the sole basis for budgeting in that consideration should be given to the important variables involved at each installation.[47]

To further increase the usefulness of the standard cost information to the field activity manager, the Bureau of Yards and Docks has instituted the following three part program for family housing cost analysis:

First, with the assistance of the Field Engineering Offices, engineered annual cost targets are determined individually for each field activity. "Targets will be established on a unit cost basis at the cost sub-category level; e.g., interior painting, refuse collection, electrical utility costs,"[48] as shown on the family housing cost report. The Department of Defense acceptable annual cost ranges are to be used as a reference point against which the computed cost target can be checked.

Second, Field Engineering Office analyzes activity cost reports. "The ultimate objective of the Bureau of Yards and Docks 'Data Bank' system . . . is to have . . . field activity budget information in . . . Budget Line Code detail, . . . [including] the engineered cost target determinations . . . . Quarterly cost information from the . . . Cost Report . . . will then be compared with this budget data and the activity obligation plan to determine variances. Exception runs . . . [showing]

---

[47]Memorandum from Deputy Assistant Secretary of Defense (Installations and Logistics) Family Housing to the Service Secretaries (Installations and Logistics), September 16, 1964.

[48]U. S. Department of the Navy, Bureau of Yards and Docks, BUDOCKS NOTICE 11101, December 4, 1964.

variances in excess of fifteen per cent from the field activity obligation plan will be . . . provided to the responsible Field Engineering Office for continuing management action."[49]

Third, corrective action for cost variances is initiated. The Field Engineering Office inaugurates timely and effective management action ranging from "an informal discussion of the causative factors with field personnel to a complete engineering study of a field activity function or group of functions in order to develop broad corrective procedures or policy changes."[50]

Occupancy and Utilization

A consideration of the factors of occupancy and utilization basically involves examining the efforts of management to ensure: (1) a minimum practicable number of days during which quarters are held vacant between occupants through timely accomplishment of necessary repairs plus effective assignment procedures; and (2) that quarters assignments are consistent with the category of personnel for whom built or any subsequent redesignation.

Coordination of Assignments

The two principle reasons for the continuing effort to reduce vacancy losses to a minimum are that unoccupied quarters "represent a loss to the government in revenue from quarters allowance checkage or rental charges and a loss to the prospective

---

[49] Ibid. Note that, due to non-availability of computer time, exception reports will not be provided until some time in Fiscal Year 1966; therefore, FEOs must analyze the reports on a manual basis during the interim.

[50] Ibid.

occupant in terms of beneficial use."[51] Since most field activities have fewer quarters than eligible assigned personnel, the normal assignment situation involves selecting a prospective occupant from the "housing waiting list." Therefore, the assignment task becomes one of (1) notifying the prospective occupant far enough in advance to permit him to arrange for an orderly move-in; (2) conducting an inspection of the quarters before they are vacant to define the scope of rehabilitation work to be performed; and (3) timely prosecution of rehabilitation work which must be accomplished while the quarters are vacant. Minimizing the vacancy losses demands a close coordination of the assignment, inspection and maintenance efforts.

Vacancy rate, or its complement utilization rate, is one of the principle indicators by which the Secretary of Defense monitors the Military Departmental family housing programs. Utilization rate standards of 93 per cent for sub-standard quarters and 98 per cent for all other quarters demand that most activities use 95 per cent and 99 per cent as targets in order that the standards may be achieved on a Navy-wide basis.[52]

The occupancy rate is monitored within the Navy by means of a quarterly report as shown on Exhibit 9, which is required of activities for each category of housing. When activity reports are received at the Field Engineering Office level, the data is verified and transcribed into a punched paper tape for direct use as computer input at the Bureau level.

---

[51] Housing Administration, op. cit., p. 6-2.

[52] U. S. Department of the Navy, SECNAV INSTRUCTION 11101.67, December 30, 1963.

Exhibit 9

HOUSING REPORT
1AVDOCKS 2964 (REV. 2 64)

No letter of transmittal necessary.

REPORT BUDOCKS 11101-12

ACTIVITY NAME AND LOCATION	NAV. DIST. CODE	STATE CODE	ACTIVITY CODE	REPORT DATE FROM	TO	YR

TYPE HOUSING *(Insert applicable Alphabet Letter Code in box)*

BOX 1

☐ ENCUMBERED: A. WHERRY B. CAPEHART C WHERRY RENTAL

FUND HOUSING: D FUND, BEFORE 1950 E. FUND, 1950 AND AFTER F *(Reserved)*

OTHER PUBLIC QUARTERS: G. LEASED H. SURPLUS COM. I FOREIGN SOURCE J PERMIT K *(Reserved)*

SUBSTANDARD: L. INADEQUATE PUBLIC QUARTERS M. LANHAM N RENTAL HOUSES O TITLE III HOUSES P. TITLE III TRAILERS Q TRAILERS R *(Reserved)*

TRAILER SPACES: S. TRAILER SPACES

NAVY CONTROLLED - NOT OWNED: T. WHERRY UNACQUIRED U. SECTION 810 V RENTAL GUARANTY

BOX 2

☐ *Check this box IF reporting* LOANED HOUSING

SECTION I. INVENTORY INFORMATION *(Complete for EACH TYPE of housing)*

1. PREVIOUS TOTAL	2. PREVIOUS TOTAL INACTIVE	3. NEW ADDITIONS (+)	4 GAINS BY CONVERSION (+)	5. LOSS BY CONVERSION (−)	6. DISPOSALS (−)	7. OTHER LOSSES (−)	8. PRESENT TOTAL UNITS	9. INACTIVE UNITS

SECTION II. OCCUPANCY INFORMATION *(*Indicates E-4 with less than 4 years' service)*

ITEM	OCCUPANTS					
	OFFICERS	E9 - E4	*E4 - E1	NON NAVY MILITARY	NAVY CIVILIANS	NON NAVY CIVILIANS RENTING
1. OCCUPIED UNITS *(On report date)*						
2. VACANT BUT AVAILABLE UNIT DAYS						

UNIT DAYS					8. MOVE OUTS DURING PERIOD	9. MOVE INS DURING PERIOD	10. AVE. NO. OF DAYS BETWEEN MOVE OUTS AND MOVE INS	11. % OF 3 & 4 BEDROOM NON BILLET QTRS. OCCUPIED BY PERS. WITH LESS THAN 4 DEP.
3. VACANT FOR MAJOR REHAB.	4. VACANT FOR RECURRING M&R	5. OCCUPIED DAYS, RENTAL	6. OCCUPIED DAYS BAQ FORFEITURE	7. TOTAL GROSS UNIT DAYS				

SECTION III. BAQ FORFEITURE (IN DAYS) *(*Indicates E-4 with less than 4 years' service)*

1. SERVICE	CODE	OFFICERS						
		O10 - O7	O6	O5	O4 - W4	O3 - W3	O2 - W2	O1 - W1
NAVY	1							
MARINE CORPS	2							
ARMY	3							
AIR FORCE	A							
COAST GUARD	5							

	CODE	ENLISTED							
		E9 - E8	E7	E6	E5 - E4	*E4 - E2 (3+ DEP)	*E4 - E1 (2 DEP)	*E4 - (1 DEP)	E3 - E1 (1 DEP)
NAVY	1								
MARINE CORPS	2								
ARMY	3								
AIR FORCE	4								
COAST GUARD	5								

2. CIVILIAN HOUSING ALLOTMENT FORFEITED FOR PERIOD $

3. MILITARY STATION HOUSING ALLOWANCE FORFEITED FOR PERIOD $

SECTION IV. RENTAL COLLECTIONS *(After refunds and adjustments)*

SHELTER RENT	FURNITURE CHARGES	UTILITY CHARGES	SUNDRY CHARGES	NO. DELINQUENT TENANTS	AMOUNT DUE
$	$	$	$	#	$

SECTION V. WAITING LIST

OFFICERS	ENLISTED		CIVILIANS
	ELIGIBLE	INELIGIBLE	

SECTION VI. ADJUSTED BAQ PAID *(Type "L" and "M" only)*

SERVICE	OFFICERS	ENLISTED
NAVY	$	$
MARINE CORPS	$	$

SECTION VII. PROJECTION OF UNITS (30 JUNE REPORT ONLY) FOR TWO FISCAL YEARS

	1ST QTR	2ND QTR	3RD QTR	4TH QTR
FY _____				
FY _____				

SECTION VIII. REMARKS *(Use reverse side if necessary)*

SECTION IX. CHECK LIST

☐ *Items 1, 3, 4, 5, 6, & 7 of Sect. I equals Item 8, Sect. I.*

☐ *Items 2, 3, 4, 5, & 6 of Sect. II equals Item 7 Sect. II.*

☐ *If days are reported in Item 6, Sect. II, they equal the total days reported in Item 1, Sect. III.*

☐ *If reporting types C, N, D, P, Q, R, or S, or if civilians are reported as renting units in Item 1, Sect. II, there is an entry under "Shelter Rent", Sect. IV.*

☐ *If reporting types A, B, D, E, G, H, I, J, L, or M. Item 1, Sect. III has been completed.*

This report has been reviewed and checked prior to submission.

SIGNATURE *(Reviewing official)* DATE

Quarters Designation

Family housing in the Navy has, for the most part, been programmed and constructed for occupancy by specific categories of officers or for enlisted men. Upon completion, the quarters are given a specific designation, such as enlisted, junior officer (Ensign - Lieutenant), senior officer (Lieutenant Commander - Commander), Captain, or Flag, which is consistent with the category of personnel for whom it was programmed. After being designated for a specific category of officer (or enlisted man), a quarters may not be assigned to an officer more than one grade senior or junior to the grade for whom it is designated.

The basic concern is that requirements for quarters must not be misrepresented and that an equitable assignment policy be maintained. Unusual cases, where there is a surplus over requirements in one category and an unfilled requirement in another, may justify obtaining approval for quarters redesignation. The matter of utilization of both the quarters and the furniture and equipment is monitored by a semiannual report as shown on Exhibit 10.

Management Assistance Reviews

Field Engineering Offices are assigned responsibility for conducting annual family housing management assistance reviews at the activities under their cognizance. These reviews provide the activity commanding officer with consultative service in the form of a thorough-going appraisal of his family housing management function. The twofold purpose of the review is:

(1) To assist the activities in carrying out the

Exhibit 10

HOUSING UTILIZATION REPORT NAVDOCKS 3014 (5-64) — REPORT BUDOCKS 11101-13

ACTIVITY NAME AND LOCATION	NAVAL DIST CODE	STATE CODE	ACTIVITY NUMBER	DATE	FOR FUTURE USE

SECTION I HOUSING UTILIZATION

QUARTERS ADEQUATE FOR

HOUSING BY NUMBER OF BEDROOMS	LINE NO.	GENERAL/FLAG OFFICERS: NO. UNITS	GENERAL/FLAG OFFICERS: ACTUAL ASSIGNMENT FLAG	SENIOR OFFICERS: NO. UNITS	SENIOR OFFICERS: ACTUAL ASSIGNMENT FLAG	SENIOR OFFICERS: ACTUAL ASSIGNMENT SEN. IOR	SENIOR OFFICERS: ACTUAL ASSIGNMENT FIELD	FIELD GRADE OFFICERS: NO. UNITS	FIELD GRADE OFFICERS: ACTUAL ASSIGNMENT FLAG	FIELD GRADE OFFICERS: ACTUAL ASSIGNMENT SEN. IOR	FIELD GRADE OFFICERS: ACTUAL ASSIGNMENT FIELD	FIELD GRADE OFFICERS: ACTUAL ASSIGNMENT JUN. IOR	JUNIOR OFFICERS: NO. UNITS	JUNIOR OFFICERS: ACTUAL ASSIGNMENT FLAG	JUNIOR OFFICERS: ACTUAL ASSIGNMENT SEN. IOR	JUNIOR OFFICERS: ACTUAL ASSIGNMENT FIELD	JUNIOR OFFICERS: ACTUAL ASSIGNMENT JUN. IOR	ENLISTED MEN: NO. UNITS	ENLISTED MEN: ACTUAL ASSIGNMENT FLAG	ENLISTED MEN: ACTUAL ASSIGNMENT SEN. IOR	ENLISTED MEN: ACTUAL ASSIGNMENT FIELD	ENLISTED MEN: ACTUAL ASSIGNMENT JUN. IOR	TOTAL NO. UNITS (Col. A-E)	SUBSTANDARD: HOUSING UNITS	SUBSTANDARD: TRAILERS
		A	A-5	B	B-5	B-4	B-3	C	C-5	C-4	C-3	C-2	D	D-5	D-4	D-3	D-2	E	E-5	E-4	E-3	E-2	F	G	H
ZERO BEDROOMS	1																								
ONE BEDROOM	2																								
TWO BEDROOMS	3																								
THREE BEDROOMS	4																								
FOUR BEDROOMS	5																								
FIVE OR MORE BEDROOMS	6																								
TOTALS	7																								

SECTION II APPLIANCES

ENTER NUMBER OF ACTIVE HOUSING UNITS EQUIPPED WITH APPLIANCES (*Items 8 thru 18*)

	LINE NO.	A. ADEQUATE QUARTERS: FLAG	SENIOR	FIELD	JUNIOR	ENLISTED	TOTALS	B. SUBSTANDARD: HOUSING	TRAILERS	C. ENTER NUMBER OF OTHER APPLIANCES LOCATED IN: STORAGE	INACTIVE UNITS	COMMUNITY BUILDINGS	OTHER (*Explain in Section V*)	TOTALS
AIR-COOLING COMPLETE	8													
AIR-COOLING PARTIAL	9													
DISHWASHER	10													
GARBAGE DISPOSAL	11													
CLOTHES WASHER	12													
CLOTHES DRYER	13													
FREEZER	14													
REFRIGERATOR	15													
RANGE	16													
	17													
	18													
SECTION III DOMESTIC QUARTERS	19													

SECTION IV - FURNITURE AND FURNISHINGS

A. REPLACEMENT COST OF FURNITURE AND FURNISHINGS

IN USE $ __,___,___,__DD.DD — IN WAREHOUSE $ __,___,___,__00.DD — TOTAL $ __,___,___,__00.00

B. SUBSTANDARD UNITS

ENTER NUMBER OF SUBSTANDARD HOUSING UNITS EQUIPPED ENTIRELY OR PARTIALLY WITH GOVERNMENT-OWNED FURNITURE AND FURNISHINGS NO. _____

SECTION V - REMARKS (*Use reverse side if additional space is required*)

SECTION VI - CHECK LIST AND COORDINATION WITH FORM NAVDOCKS 2964 (REV 2-64)

☐ 1. Line 7, Col. F equals the total number of ACTIVE ADEQUATE Public Quarters (Types A thru K) reported in Item 8 less Item 9 of NavDocks 2964's for the same report date.

☐ 2. Line 7, Col. G equals the total number of ACTIVE SUBSTANDARD Housing Units (Types L thru O) reported in Item 8 less than Item 9 of NavDocks 2964's for the same report date.

☐ 3. Line 7, Col. H equals the total number of ACTIVE TRAILER UNITS (Types P and Q) reported in Item 8 less Item 9 of NavDocks 2964's for the same report date.

☐ 4. Line 7 of each Col A thru H equals the sum of Lines 1 thru 6 of each Col. A thru H.

☐ 5. Col F equals the sum of Cols. A,B,C,D, and E, for each Line 1 thru 7

REVIEWING OFFICIAL (*Signature*)

DATE

objectives of the Department of the Navy with respect to the management, maintenance and operation of family housing, and

(2) To ensure compliance with applicable policies, directives and procedures.[53]

In fulfilling its purpose, the review comprehends every significant facet of family housing management, including inventory, reports, organization and staffing, utilization, operation, maintenance, repairs and improvements, budget preparation and financial management. Field Engineering Offices are enjoined to work closely with Navy Area Audit teams to insure that the reviews do not infringe on the Navy Area Audit Office responsibility for detailed financial audit. Where possible, reviews and audits should be complementary, with a full exchange of pertinent information.

Occupant Relations Program

The aspect of family housing management which is tinged with emotion is the occupant relations program--occupant maintenance and care of the quarters, and the community spirit of the housing project. To be successful, the program requires the support and leadership of the command, since one of its primary facets is the morale of the occupants, both singly and as a group. Management must be exercised with tact, and, on occasion, with the "wisdom of Solomon." The command strives to engender within each occupant a spirit of the "prudent home owner"--the desire to take the same care of his quarters as he would if he were the owner.

---

[53] Housing Administration, op. cit., p. 14-2.

Under this program, the new occupant is provided with instructions setting forth his responsibilities for the care and maintenance of his quarters including the immediate grounds, helpful hints on how to carry out these responsibilities, notice of special tools and equipment for grounds or home care that may be available to him on a loan basis; and finally, information on incentive programs that may be in effect, such as "yard-of-the-month" or other indications of community-command interest.

SUMMARY

This chapter has set forth, in detail, the significant functional areas that comprise the Navy's family housing management system. To manage the operation and maintenance of the housing program, a vertical organization has been set up, with policy formulation and direction as well as funding support originating with the Secretary of Defense and flowing down to the activity level management staffs.

During the past five years a system of budgets, costing, and utilization monitoring procedures has been established for the management of Navy family housing. The principle aims of this system are to reduce the emotional aspects involved in housing management, and to place family housing management on a more efficient basis. In Chapter III, this system will be evaluated to determine its effectiveness as an aid for family housing management at the activity, Field Engineering Office, and the Bureau levels.

CHAPTER III

EVALUATION OF THE NAVY'S FAMILY HOUSING MANAGEMENT SYSTEM

Organization

Organizing may be viewed as a process of establishing the structure, procedures and resource requirements appropriate to a course of action selected by management in carrying out a mission. The process of establishing the structure and procedures involves developing an organizational blueprint (e.g., the relationships between the several components) and prescribing ways of performing tasks to meet the desired objectives. Determining the resources required and allocating these resources are, generally, steps which follow the establishment of structure and procedures, and involve filling in the details of the blueprint.

Locken and Strong have identified four principles underlying the structural aspects of organization: "(1) unity of command, (2) span of control, (3) homogeneous assignment, and (4) delegation of responsibility with requisite authority."[54]

Unity of command means that the ultimate responsibility for and control of all actions directed toward the objective

---

[54]Robert D. Locken, Earl P. Strong, Supervision in Business and Industry, (New York: Funk & Wagnalls Company, Copyright 1949), p. 15.

of the organization are vested in one individual at each level of the organization. Span of control, or span of management, is a term applied to the relationships between a manager and the individuals reponsible to him for specific duties. Since personal contacts burden a manager's time, there is a practical limit to the number of people that one manager can supervise. Homogeneous assignment implies grouping of functional assignments according to the closeness of their relation to one another. Assignment of responsibility with requisite authority involves assigning a task to an individual who is held responsible for carrying it out and who, in turn, is delegated the necessary authority to accomplish it.

While these principles are not hard and fast rules to be applied in all situations with equal emphasis, their application, in most cases, is the key to developing a strong and workable organization.

In implementing the centralized organization for management of family housing, consideration was given by the Navy to the aforementioned principles of organization. However, existence of the Navy's system of Management Bureaus ruled out complete compliance with the unity of command principle. Less than complete observance of the unity of command principle is particularly evident at the field activity level, where the commanding officer now finds himself in the position of receiving direction from his Command Management Bureau in matters related to his

command mission, and from the Chief, Bureau of Yards and Docks, in matters related to family housing operation and maintenance.[55]

The commanding officer's plight is somewhat akin to that of the factory worker who is exposed to the Taylor plan. Named after Frederick W. Taylor, the "Father of Scientific Management," this plan recommended a form of functional supervision as follows:

> Throughout the whole field of management the military type of organization should be abandoned, and what may be called the "functional type" substituted in its place. . . . If practicable the work of each man of management should be confined to the performance of a single leading function.[56]

Commenting on functionalization versus the unity of command principle, Henry Albers observed:

> Under the Taylor plan, workers were subject to the dictates of as many as five foremen on different functional matters. Such a differentiation of managerial responsibility may not cause serious difficulties if coordination occurs at a level not too far removed from the foreman level. (Underlining mine.)[57]

Albers identifies the key element of success in a functional foremanship situation as coordination at a level not too far removed from the functional foreman. Considering that the Field Engineering Offices are, for practical purposes, extensions of

---

[55]Implementation of Recommendation No. 76 of Review of Management of the Department of the Navy, NAVEXOS P-2426B, December 15, 1962, "The Dillon Report," has since placed the maintenance of all real property, utilities operation, and maintenance and operation of transportation equipment within the Navy under the management control of the Chief, Bureau of Yards and Docks.

[56]Frederick W. Taylor, Shop Management, (New York: Harper & Brothers, 1911), p. 99.

[57]Henry H. Albers, Organized Executive Action, (New York: John Wiley & Sons, Inc., 1962), p. 98.

the Bureau of Yards and Docks coordination of the functional management takes place at the second level above the activity, e.g., the level just above the Management Bureau.

Since responsibility and authority relationships are relatively clear-cut and the organization is functioning effectively, the unity of command principle has been observed to the extent necessary.

The principle advantage that can be claimed by the present organization is that, at the activity level, family housing operation and maintenance requirements are no longer competing for funds with mission-oriented operational requirements. Other advantages which accrue from the functional housing organization are as follows:

The functional organization makes the best use of expert knowledge, and the functional efficiency of personnel is maintained.[58]

Centralization of housing functions at the Bureau of Yards and Docks level for purposes of management, as well as technical guidance, promotes a stronger Navy position with the Secretary of Defense than was possible with housing fragmented among the several Management Bureaus and offices.

The fact that Field Engineering Offices have a staff of highly qualified housing management personnel who are located near the field activities results in improved liaison for activity problems. These middle management personnel have an intimate

---

[58]U. S. Department of the Navy, Bureau of Naval Personnel, Organization Planning for Naval Units, NAVPERS 18371A, 1964, p. 14.

knowledge of "station-peculiar" problems, as well as being available to provide consulting service that may be necessary. Further, since activity management assistance reviews are actually accomplished by the Field Engineering Office staffs, these personnel are in an ideal position to conduct budget reviews and to carry out budget execution functions.

Finally, functionalization provides for uniformity of maintenance levels and standards for housing throughout the Navy.

Achievement of the overall Navy objective of operating and maintaining family housing on an economical, effective, and businesslike basis is contingent upon the performance of the activity-level segment of the Navy's functional housing organization. As mentioned in Chapter II, the responsibilities of the activity commanding officer and his housing management staff are the efficient and effective management of available dollar resources and assuring maximum utilization of the existing family housing assets.

Since family housing is intimately connected with the morale and welfare of his personnel, every commanding officer is concerned with the effective management of his family housing assets. The survey made in connection with this paper contained no inquiry into the amount of time that commanding officers spend dealing with family housing matters. However, the fact that activity Public Works Officers do spend a significant percentage of their time on housing is shown by Exhibit 11. Public Works Officers at eight out of ten of the large activities surveyed spend over ten per cent of their time on housing, and five of

Exhibit 11

COMPARISON OF HOUSING MANAGER'S GRADE LEVEL AND PUBLIC WORKS OFFICER'S TIME ON HOUSING

ACTIVITY	NUMBER OF HOUSING UNITS	% PUBLIC WORKS OFFICER'S TIME ALLOCATED TO HOUSING	HOUSING MANAGER'S GRADE LEVEL	GRADE LEVEL CONSIDERED ADEQUATE	UNGRADED PERSONNEL IN PUBLIC WORKS
A	1,276	20	9	NO	140
B	3,200	10	12	YES	175
C	1,075	20	12	YES	740
D	1,790	10	11	YES	534
E	2,011[a]	4	12	NO	250
F	809	20	10	YES	564
G	1,536	7	9	NO	610
H	2,953	15	11	YES	489
R	1,116	10	11	NO	236
T	1,983	20	12	YES	1,500
I	304	3	9	YES	666
M	394	10	9	NO	407
N	470	10	10	YES	307
O	227	10	6	NO	140
P	590	10	11	NO	399
U	413	5	10	YES	180
V	568	10	9	NO	580
W	458	5	10	YES	646
X	551	15	9	YES	502
S	97	1	5	NO	142
J	36	5	5	NO	535
K	60	5	5	YES	103
L	84	5	7	YES	—

[a] 65 % OF MAINTENANCE DONE BY CONTRACT.

these eight spend more than fifteen per cent of their time on housing. At the medium activities, the Public Works Officers spend about ten per cent of their time on housing, and at the small activities, they spend about five per cent.[59]

The data shown in Exhibit 12 have been developed to determine whether there is a significant relationship between the manner in which a Public Works Officer allocates his time and the functional breakdown of his dollar resources. Since utilities costs chargeable to the general facilities funds (Budget Project 15), as well as all operations chargeable to housing funds (Budget Project 10), are, by and large, continuing costs not subject to close control by the Public Works Officer, these funds are not included in the amounts shown in Exhibit 12. Further, information on Naval Industrial Funds, made available by other than Field Engineering Office allotments, was not available; therefore, the comparison is not significant for activities under the Naval Industrial Fund.

At six activities, the Public Works Officer spends about double the amount of time on housing that would seem appropriate based on the total dollar resources involved in maintenance functions. At four activities, the Public Works Officer's time allocation is consistent with the housing dollars as a percentage of total facilities maintenance dollars. At the remaining four activities, the percentage of Public Works Officer's time is significantly less than the housing dollars as a percentage of total facilities maintenance dollars.

---

[59]For the purpose of this paper, "activity size" relates to size of the housing operation (small: 0-100 units, medium: 100-600 units, and large: over 600 units).

Exhibit 12

COMPARISON OF HOUSING MAINTENANCE FUNDS WITH THE PUBLIC WORKS OFFICER'S TIME ALLOCATED TO HOUSING[a]

ACTIVITY (1)	NUMBER OF HOUSING UNITS (2)	GENERAL FACILITIES FUNDS LESS UTILITIES - B.P. 15 (3)	HOUSING MAINTENANCE FUNDS - B.P. 20 (4)	TOTAL COL'S 3 & 4 (5)	HOUSING MAINTENANCE FUNDS AS % OF COL. 5 (6)	% PUBLIC WORKS OFFICERS TIME ALLOCATED TO HOUSING (7)
A	1276	$1,011	$ 328	$1,339	24.5 %	20 %
D	1790	3,126	651	3,777	17.3	10
E	2011	2,985	377	3,362	11.2	4
F	909	2,733	227	2,960	7.7	20
G	1536	4,165	254	4,419	5.8	7
H	2963	2,791	779	3,570	21.8	15
R	1116	1,689	316	2,005	15.7	10
O	227	1,688	49	1,737	2.8	10
P	590	2,543	138	2,681	5.1	10
S	97	1,384	27	1,411	1.9	1
J	36	998	29	1,017	2.6	5
K	60	1,163	16	1,179	1.4	5
U	413	1,789	68	1,857	3.7	5
V	568	7,335	196	7,531	2.6	10
W	158	4351	224	4,575	4.9	5

[a] DOLLARS IN THOUSANDS.

While no single pattern can be deduced from Exhibit 12, there is certainly an indication that activity Public Works Officers are spending a significant percentage of their time on housing matters. This situation may be a result of the high interest in family housing on the part of command or it may be a reflection of the capabilities of the activity housing manager, or a combination of both. The importance of having an able housing manager must be recognized as a key element in a successful housing operation. He should have sufficient ability in directing housing management functions to preclude the necessity of the Public Works Officer spending a disproportionate percentage of his efforts on housing matters.

The Bureau of Yards and Docks guideline statement in regard to selection of housing management personnel is as follows:

> It is essential that the staffing of the organization structure be as selective as possible to ensure the recruitment and retention of highly qualified personnel and thus provide for effective continuity of experience within the civilian complement. Breadth of experience is an important qualifying factor . . . . Applicants for housing management positions should have affirmagively demonstrated their professional competence for a particular position by substantive evidence of practical experience in positions of comparable difficulty or responsibility.[60]

Guidance continues in regard to position classification:

> . . . Positions will be classified within the housing management series . . . and will include administration, supervision and accomplishment of special managerial attention, including working relationships, attitudes, and professional demeanor, required to provide necessary advice and technical assistance in the review and evaluation of housing management operations.[61]

---

[60] Housing Administration, op. cit., p. 4-9.

[61] Ibid., p. 4-9 and 4-10.

Further, the role of the housing manager, as envisioned by the Bureau, is as follows:

> The housing manager serves in many capacities in the performance of his duties . . . as staff advisor on housing matters to the Commanding Officer and Public Works Officer; be the buffer and the channel between the command and the housing occupants; should develop and execute programs for the operation of housing; integrate consideration of maintenance requirements with fund availability and customer (occupant) satisfaction in executing programs for the maintenance and operation of housing; and serve in a liaison capacity in the development and operation of community facilities and activities. . . .[62]

From the foregoing, it is evident that the housing manager is expected to be a "Jack-of-all-trades and a master of most" with both a flare for executive ability and an interest in community programs. A cursory review of the housing program requirements will substantiate the observation that a housing manager must be an extremely well-rounded administrator to fulfill his role in the housing program.

As can be observed from Exhibit 11, ten out of 23 activities consider that their housing manager's grade level is too low for the responsibilities assigned. The author had recent personal experience in this connection when, as Assistant Public Works Officer at a large activity (about 1000 units), he endeavored unsuccessfully for three years to justify upgrading a housing manager position from GS-10 to GS-11 level. The relatively low grade level of housing manager positions is causing serious problems in filling the positions with qualified personnel. At the activities surveyed, two of the housing managers are college

---

[62] Ibid., p. 6-1.

graduates and eight have two years of college education. The remaining housing managers have progressed into their present positions from administrative, fiscal, or supply experience, or from lower level housing positions. Comments from two Field Engineering Offices evinced concern over the lack of a formal training program for activity housing managers for the purpose of improving management as necessary to cope with the present housing program.

Financial Management

The financial aspects of management can be identified as planning, budgeting, and control. Planning is managerial activity concerned with future operations. It is a process of establishing objectives, determining what conditions exist, and then devising ways and means of attaining the selected objectives. Budgeting is the process of converting plans into the language of the resources required, related to time, to conduct those operations necessary to implement plans. Controlling is the process of monitoring certain key operations to ascertain the extent to which they proceed according to plan. Effective control implies the opportunity to make corrections on a timely basis to bring operations in line with plans (or standards) without loss of effort. Each of these three processes is a continuing managerial activity subject to change, to meet the conditions of a constantly changing situation.

Planning

It can be accepted that the key to planning is recognizing

that, once a plan has been developed, management must be prepared to change the plan as the situation dictates.[63] This concept is particularly true of long range planning.

It might be concluded that planning for the operation and maintenance of family housing need not entail a concern for constant change. If it is assumed that there is a continuing military requirement for all housing assets at an activity, it might be concluded that resource requirements for housing are not particularly a function of the tempo of the military operations, certainly not to the extent that aviation fuel requirements are a function of flying hours. Can planning for housing be simply a matter of establishing a pattern for maintenance and repair that will fulfill the basic objective of protecting the family housing investment, and then proceed with very little need for change?

While the foregoing rationale may be valid on a program-wide basis, when the program is subdivided and viewed from an individual activity standpoint, planning on the basis of "no change" will not be effective. While utilities consumption and other types of service may have a generally straight-line characteristic from year to year, maintenance and repair requirements for individual quarters as well as for roads and utilities systems are variable. The cyclical characteristic of needs for maintenance and repair of each major component of a structure or system makes sound planning a necessity.

---

[63] James Dowd, "The Board of Directors Looks at Long Range Planning," The Controller, XXX, Number 11 (November 1962), p. 537.

Planning for housing maintenance and repair can be divided into four elements:

1. Determine existing conditions. This involves a careful inspection to determine the present material condition of each major component of each unit and estimating how long into the future the component or sub-component will last before it requires significant maintenance, repair, or replacement.

2. Establish a long range maintenance plan. Based upon the conditions that exist, and upon the estimates of when significant maintenance or repair efforts will be required, a long range maintenance plan is developed for at least a five year period.

3. Establish a short range plan. With data extracted from the long range plan as a basis, a comprehensive short range plan is developed to be used in supporting resource budgeting to carry out the plan.

4. Update the plan. Periodically update the long range plan based upon results of inspections, or changes in status, which dictate the need for revising the plan.

Seventeen out of 23 activities surveyed have long range maintenance plans in effect. All 17 activities agree that budget preparation and execution have been greatly facilitated through the use of this type planning. Field Engineering Offices do not feel that maintenance plans are being used to the degree possible thus far; however, they expect fuller utilization of the plans in the near future.

The survey conducted for this paper also inquired into

the manner in which maintenance and repair work is generated. While no precise pattern exists, the dollar value of work generated by the continuous inspection program averages around thirty per cent at most of the activities. As long range planning becomes more fully implemented and its benefits are more fully realized, the proportion of work generated by the continuous inspection program can be expected to increase. In this manner, management will be in the position of being able to shape the maintenance workload into manageable proportions rather than having it unexpectedly descend upon them.

Consideration of several other policy matters is necessary when formulating short term plans. In the interest of achieving high occupancy targets, vacancy-days for maintenance must be held to a minimum. Streamlining of work authorization techniques by use of "standard maintenance" procedures and preprinted (and pre-estimated) work authorizations is being pursued by many activities. Accomplishing work such as interior painting in occupied quarters has also been considered; however, 21 out of 23 Public Works Officers have found that only minor work can be done on an economical basis. Attempts to do extensive interior painting in occupied quarters have resulted in higher costs.[64]

Planning of work to be accomplished by contract is

---

[64]One large activity has found interior painting of occupied quarters necessary due to the long duration of occupancy (up to 19 years for civilians), but indicated that costs were approximately 30 per cent higher. Another activity which finds it practical is a small activity with a 36-month average occupancy duration over the past four years.

another matter which must be given serious consideration. Of the activities surveyed, only two are accomplishing their general housing maintenance by contract, and these do not provide for full coverage of the work required. Eight activities, however, are performing items such as grounds care and master television antenna system maintenance by contract.

Finally, to increase responsiveness on the part of activity shop forces, six out of ten of the large activities have found it prudent to establish a separate work center for housing maintenance. Staffing of these work centers ranges from 14 to 38 men.

Budget Preparation and Execution

The budget process is one of the most important features of a management system. The Bureau of Yards and Docks considers that this key function should be assigned to the activity housing manager. In this connection, the housing manager should be responsible for:

> The development and justification of annual family housing budgets and other requests for funds; preparation of financial reports; and control of the use of allocated family housing funds. No housing maintenance will be undertaken without prior approval of the housing management office . . . job orders for housing maintenance will be issued under the signature of the housing manager to insure availability of funds prior to actual commencement of work.[65]

Thus, it is intended to make the housing manager responsible for all aspects of financial management for housing funds. At 10 out of 23 activities surveyed, the housing manager is

---

[65]Housing Administration, op. cit., p. 4-8.

charged with preparation of the budget. Also, the housing manager makes the final determination of what goes into the housing budget at 12 out of the 23 activities. At eight activities, however, including four large housing operations, the housing manager has no responsibility for preparation of the housing budget, except to assist in a minor way. At over half of the activities surveyed, the housing manager does not play a major role in the budget preparation phase of management.

Budget execution is another story. Thirteen out of 23 housing managers approve emergency-service type work authorizations.[66] Several other housing managers, however, stated that they achieve effective control of this type work by a periodic review of emergency-service authorizations to insure compliance with established policy as to the nature of the work accomplished.

Control of major work is also assigned to over two thirds of the housing managers surveyed. Seventeen are responsible for approving the scope of housing maintenance inspection reports and 18 are responsible for approving work authorizations, other than emergency-service work, prior to issuance. There are five housing managers, however, who have no responsibility for approving any of the work authorizations issued. At these activities the housing manager apparently has no control over housing

---

[66]Emergency-service work authorizations, as the title indicates, are for work of a minor nature that is generated as a result of notice from a customer (occupant) of some form of material casualty at a quarters which, by its nature cannot be deferred until the next normal maintenance is scheduled. Normally this work is limited to not over two mandays of labor or a total cost of $50.

funds, except that which may result from after the fact reviews of completed-work cost data.

Where the activity budget preparation and execution is not assigned to the housing manager, these functions are accomplished by the Administrative Division and/or Maintenance Control Division personnel. At these activities, overall coordination of the housing program usually gravitates to the Assistant Public Works Officer rather than to the housing manager.

Information was obtained on the backlog of essential maintenance trends for 19 of the activities surveyed. The other four activities reported no backlog for the period. There is no common pattern to the individual backlog trends; however, a plot of the composite backlog for the activities, as shown in Exhibit 13 indicates an increase from about $3.4 million in 1960 to about $4.9 million in 1964. The characteristic of the composite curve gives indication that the backlog is stabilizing around $5.0 million. Activities "C" and "F" reported that they do not consider present funding adequate to support a reasonable level of maintenance. Further, activities "A" and "E" replied with a qualified "yes" to the same question, stating that the present low level of funding will "soon catch up with us." As can be noted in Exhibit 14, the backlog of essential maintenance trend for activity "C" does not substantiate this contention, although the backlogs for activities "A", "E", and "F" do show a significant upward trend, particularly for 1963 and 1964. In general, the survey results show that recent funding levels have not caused the state of maintenance to deteriorate significantly.

Exhibit 13

COMPOSITE BACKLOG OF ESSENTIAL MAINTENANCE
TREND FOR 23 ACTIVITIES

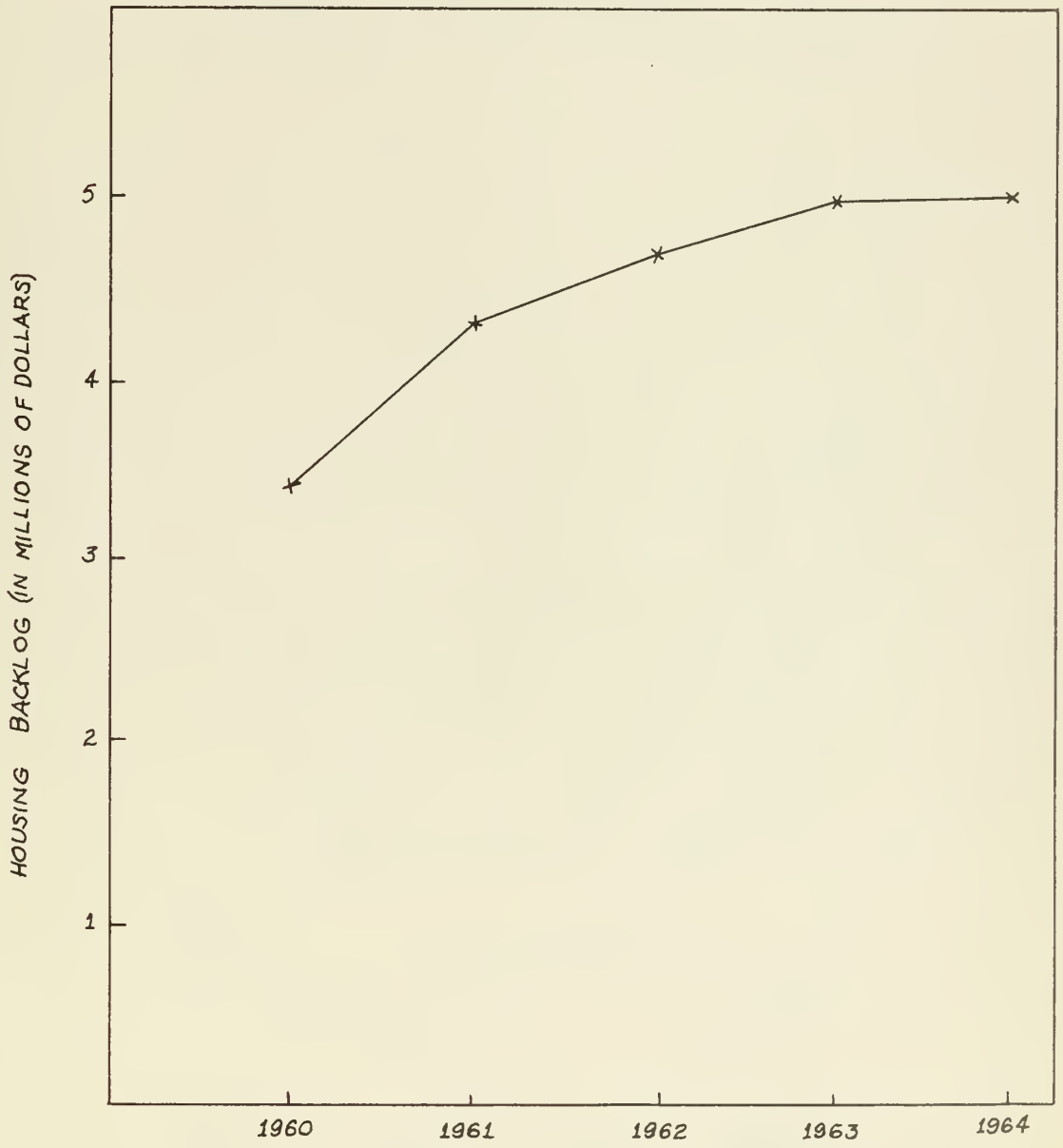
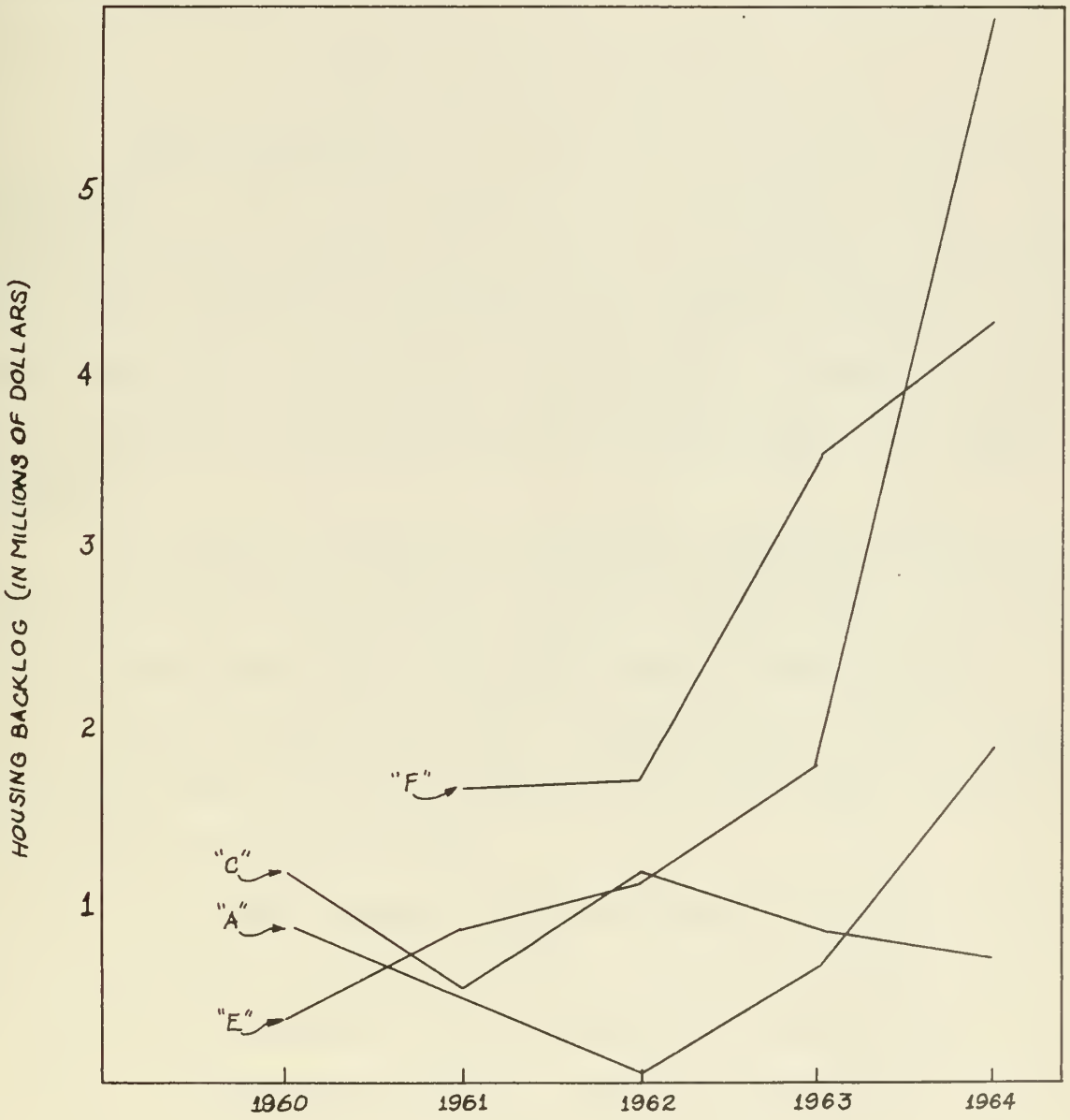


Exhibit 14

BACKLOG OF ESSENTIAL MAINTENANCE TRENDS OF FOUR SELECTED ACTIVITIES



The problems being experienced by the four cited activities may require special attention by the respective Field Engineering Offices to insure that funding is consistent with requirements to protect housing assets. Comments received from the activities surveyed indicate satisfaction with the present budgeting procedures.

The Accounting Dichotomy

Cost Accounting.--In connection with family housing management, cost accounting supports the budget process. Unit costs, developed through the analysis of historical experience data, are the primary building blocks used to construct a budget for resources. Accordingly, accumulation of realistic cost information is a prerequisite to the development of a sound budget.

A second, and equally important, purpose of cost accounting is to afford the manager a measure of control of his resources in the day-to-day budget execution phase of management.

Cost accounting systems used in manufacturing enterprises may be divided into two categories: (1) job order (or lot) costing and (2) process costing.

Job order costing involves defining the scope of work to be accomplished in terms of a given number of product units for a particular production order, assigning an identifying control number to the production order, and then accumulating the costs of production against the assigned job order number. Costs are normally accumulated by charging labor and material directly

against the job order and assigning indirect (overhead) costs on the basis of a predetermined method of proration.

Process costing, on the other hand, involves accumulating costs of labor, material, and overhead over a period of time and applying these costs to the total units produced during the period. This type of costing is normally used when a continuous flow of product pertains or when identification of the costs for a particular lot of goods would be overly complex.

While maintenance and operation of public works in the Navy is not a manufacturing process, cost accounting for these functions employs a combination of the aforementioned costing methods.

The Bureau of Yards and Docks Maintenance Control Program[67] makes provision for the following types of work authorizations: (1) Specific, (2) minor, (3) "standing," and, as mentioned before, (4) emergency-service. Specific work authorizations are used to accomplish significant items of work on a "one-time" basis. Labor and material requirements are established by individual estimates and costs are accumulated and reported back to the manager on the basis of the specific job order number assigned. Minor work authorizations are used for relatively small jobs (normally about 80 manhours or less) and, while individually estimated, costs are accumulated and reported against a blanket job order number; therefore, the cost of each job is not separately identifiable. "Standing" work authorizations are used for work

---

[67]This program is set forth in Maintenance Management of Public Works and Public Utilities, NAVDOCKS P-321, the Public Works Officer's maintenance management bible.

of a continuing nature, such as grounds care or janitorial services. Cost accumulation for this type work is by individual job order, but reporting is by time period, e.g., monthly or quarterly. Emergency-service work authorizations are costed in the same manner as minor work authorizations. Specific work authorizations use job order (or lot) type costing and the other three use process type costing.

Since the cost accounting system is intended to aid the manager in control of work effort, the traditional emphasis in the Navy has been toward authorizing as high a percentage of work as possible under specific work authorizations. This provides more positive control of the work force than is inherent in a system where work is costed by "standing" or blanket job orders.

The job order structure needed to establish this costing system is normally defined in a job order accounting guide prepared by each activity in advance of the fiscal year accounting period. Exhibit 15 is an excerpt from the housing accounting guide of one of the activities surveyed. It can be observed that the accounting guide identifies the work function with a budget line code, a job order number, and an Expenditure Account number.[68] It should be noted that the budget format as shown in Exhibit 5 and the cost report as shown in Exhibit 7 are not in complete agreement. This has resulted in a need to establish extra accounts in order to enable identification of cost data

---

[68]Exhibit 15 also provides a WARES code number, which ties effort into the BuWeps management system, entitled Workload and Resources Evaluation System (WARES).

Exhibit 15

EXCERPT FROM ACTIVITY

ACCOUNTING GUIDE

WARES CODE	BUDGET LINE CODE	DESCRIPTION	JOB ORDER NUMBER	EXPEND. ACCT. NUMBER
		MAINTENANCE OF REAL PROPERTY:		
MEMQ				
L231	6110	Building, Roof and Floors	85000	44568
L231	6130	Interior Painting	85001	44568
L231	6140	Exterior Painting	85002	44568
L231	6150	Interior Utilities	85003	44568
Public Quarters--Officers:				
L231	6110	Building and Roof	85004	44568
L231	6110	Awnings	85005	44568
L231	6130	Interior Painting	85006	44568
L231	6140	Exterior Painting	85007	44568
L231	6150	Interior Utilities	85008	44568
Public Quarters Officers (Structural Allowance Account):				
L231	6110	Bldg. Maint.(Int.) Qtrs. "A"	85009	44568
L231	6110	Bldg. Maint.(Int.) Qtrs. "B"	85010	44568
L231	6130	Interior Painting Qtrs. "A"	85011	44568
L231	6130	Interior Painting Qtrs. "B"	85012	44568
L231	6150	Interior Utilities Qtrs. "A"	85013	44568
L231	6150	Interior Utilities Qtrs. "B"	85014	44568
L270	6160	Maint. of Appliances Qtrs. "A"	85015	44120
L270	6160	Maint. of Appliances Qtrs. "B"	85016	44120

for the purpose of both budgeting and cost reporting. However, this situation will be improved for the Fiscal Year 1966-67 budget call, which will contain a revised format paralleling the cost report format.[69] Accordingly, for the purpose of further discussion in this paper, parallel budget and cost report formats are assumed.

The Navy Expenditure Account system has been used for a number of years to accumulate cost data by functional area for use in connection with performance budgeting. Since the uniform cost accounting system for family housing has been instituted, the continued use of Expenditure Accounts for housing results in redundancy. Six out of 23 activities surveyed stated that Expenditure Accounts are still being used to assist in budgeting and controlling housing expenditures. However, the other 17 activities are no longer realizing any management benefit from Expenditure Accounts in family housing, since budgeting and costing is in terms of budget line codes and uniform cost classifications respectively.

The purpose of establishing a uniform costing system was to develop data "useful in the effective management of family housing at all management levels."[70] That this purpose has not yet been fulfilled is evidenced by the fact that only 10 of the 23 activities surveyed are using the Family Housing Operation and Maintenance Cost Report for local management purposes. The

---

[69]Presentation by CDR H. L. Bowman, CEC, USN, BuDocks Housing Operations Division Director, at the BuDocks/FEO Code 60 Conference on January 18, 1964.

[70]Task Force Report on Uniform Cost Criteria, op. cit., p. 3.

remaining 13 activities commented that the cost report is "just another meaningless, burdensome report of no value."

This observation is further substantiated by responses from Field Engineering Offices. While all eight responses stated that the cost reports are being used as a basis for management action at their level, three of the Field Engineering Offices stated that the cost reports are viewed with caution as to accuracy and that their report review is primarily concerned with verification of data accuracy. These cost reports are being used by Field Engineering Offices to aid in budget review, in establishing tentative budget targets, and in monitoring expenditures during budget execution.

The cost reports represent accrued cost information with the amount of carryover from previous fiscal year funds identified as a lump sum. Since the carryover is not identified by line code, direct comparison of cost data by line codes with the budget plan becomes difficult, thereby overcomplicating the Field Engineering Office periodic review of budget execution.

Another indication that the uniform system of cost accounting for housing does not completely fulfill the needs of activity level managers is manifested by the fact that 18 out of the 23 activities surveyed are continuing the use of specific work authorizations to retain the measure of control necessary for other management purposes. Further, three of the five activities not now using specific work authorizations consider that adequate control of shop effort is not being obtained through the use of line code costing alone.

Financial Accounting.--A respect for the provisions of the Anti-Deficiency Act on the part of Bureau of Yards and Docks, the Field Engineering Office, and the activity level managers leads to the same dichotomy in accounting for family housing funds as exists in management of other Navy appropriations. In addition to the need for cost accounting as a measure of performance, there is also a need for financial accounting as a means of insuring against over (and under) obligation of funds.

Financial accounting is particularly important to the activity level manager. Since costs are not incurred until goods or services are actually received (and, in the case of accrual accounting, incorporated into the work), the time span between placing a procurement order and incurring a cost can be several weeks and, for long lead-time material, can be several months. The net result is that cost reports are received weeks after the initial approval to proceed with any given scope of work. Therefore, the manager needs periodic reports of obligation-rate information upon which he can base day-to-day decisions as to the work authorizations to be approved for accomplishment.

Fifteen out of 23 activities surveyed are using a status of funds report (either obligation or commitment[71]) to provide

---

[71]An obligation is defined as an accepted purchase order (or contract) in the case of outside purchases, or a requisition accepted by the Supply Officer in the case of Navy Standard Stock (NSA) materials; or, in the case of shop forces labor, acceptance of the labor charge by the Fiscal Officer. A commitment is a firm reservation of funds established by the execution of a procurement directive or requisition, which authorizes creation of an obligation. Copies of requisitions are sent to the Fiscal Officer, who sets up a commitment pending incurrence of the obligation. Direct labor charges go direct to the obligation stage.

this type of management information. The Bureau of Yards and Docks has recognized the activity need for management information in terms of obligation-rate, and, as a part of an overall management improvement effort, the Public Works Control Summary report shown in Exhibit 16 has been established.[72] While this report is intended to support housing management as well as general facilities management, only seven of the 23 activities are using the Public Works Control Summary as an aid to housing management. However, 11 activities are using the general Control Summary format--modified by substituting budget line code classifications for the items shown in column 1--for obligation-rate reporting.

Use of Cost Standards.--One of the principle means of appraising performance is through the establishment of cost standards which are usable to the manager at his level. The acceptable cost ranges shown in Exhibit 8, for instance, may be useful for measuring overall Navy performance against the performance of the Army and Air Force, since differences such as age, geographical location, size of housing operation, and others will average out. Direct application of these standards at the activity level is not appropriate, however, because they have not been adjusted to reflect "station peculiar" conditions. Conceivably, an activity's performance might be exactly on the mid point of the acceptable cost range, but because of unusual local conditions the activity's performance might actually be poor. Also,

---

[72]U. S. Department of the Navy, Bureau of Yards and Docks, BUDOCKS NOTICE 11014, June 12, 1964.

Exhibit 16

PUBLIC WORKS CONTROL SUMMARY
NAVCOMPT_____ PART I

DATE

STATION NAME | SOURCE OF FUNDS | CHECK ☐ EXPENDITURES

ITEM	BUDGET CURRENT MONTH			BUDGET YEAR TO DATE			ANNUAL PLANNING FIGURE
	PLAN	ACTUAL	VARIANCE	PLAN	ACTUAL	VARIANCE	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
MAINTENANCE DIVISION							
DIRECT							
1. MAINT. & REPAIR (other than Utilities)							
2. MAINT. & REPAIR OF UTILITIES							
3. OTHER MAINTENANCE & REPAIR							
4 SUB-TOTAL DIRECT							
5. INDIRECT							
6. TOTAL MAINTENANCE DIVISION							
UTILITIES DIVISION							
DIRECT							
7. PURCHASED							
8. OPERATIONS							
9. SUB-TOTAL							
10. LESS: TRANSFERS TO REIM. (2505 only)							
11. INDIRECT							
12. TOTAL UTILITIES DIVISION							
TRANSPORTATION DIVISION							
DIRECT							
13. MAINTENANCE							
14 OPERATIONS							
15. SUB-TOTAL DIRECT							
INDIRECT							
16. MAINTENANCE							
17. OPERATIONS							
18. SUB-TOTAL INDIRECT							
19. GROSS TOTAL							
20. LESS: EQUIPMENT CHARGES							
21. TOTAL TRANSPORTATION DIVISION							
22. ALL OTHER WORK							
23. MAINTENANCE CONTROL DIVISION							
24. ENGINEERING DIVISION							
25. PUBLIC WORKS ADMINISTRATION							
26. TOTAL PUBLIC WORKS DEPARTMENT							

there is difficulty engendering enthusiastic personal commitment to the Department of Defense standards on the part of the activity Public Works Officer, since he may have no knowledge as to the validity of the standards for his specific situation.

To make the cost standards more useful, the Bureau of Yards and Docks has instituted a program of developing local engineered cost standards for each activity. These standards will take cognizance of local physical and environmental conditions, Naval Industrial Fund requirements, and the type of labor used (shop forces versus military or contract). These activity standards will be an aid to management at both the activity and Field Engineering Office levels.

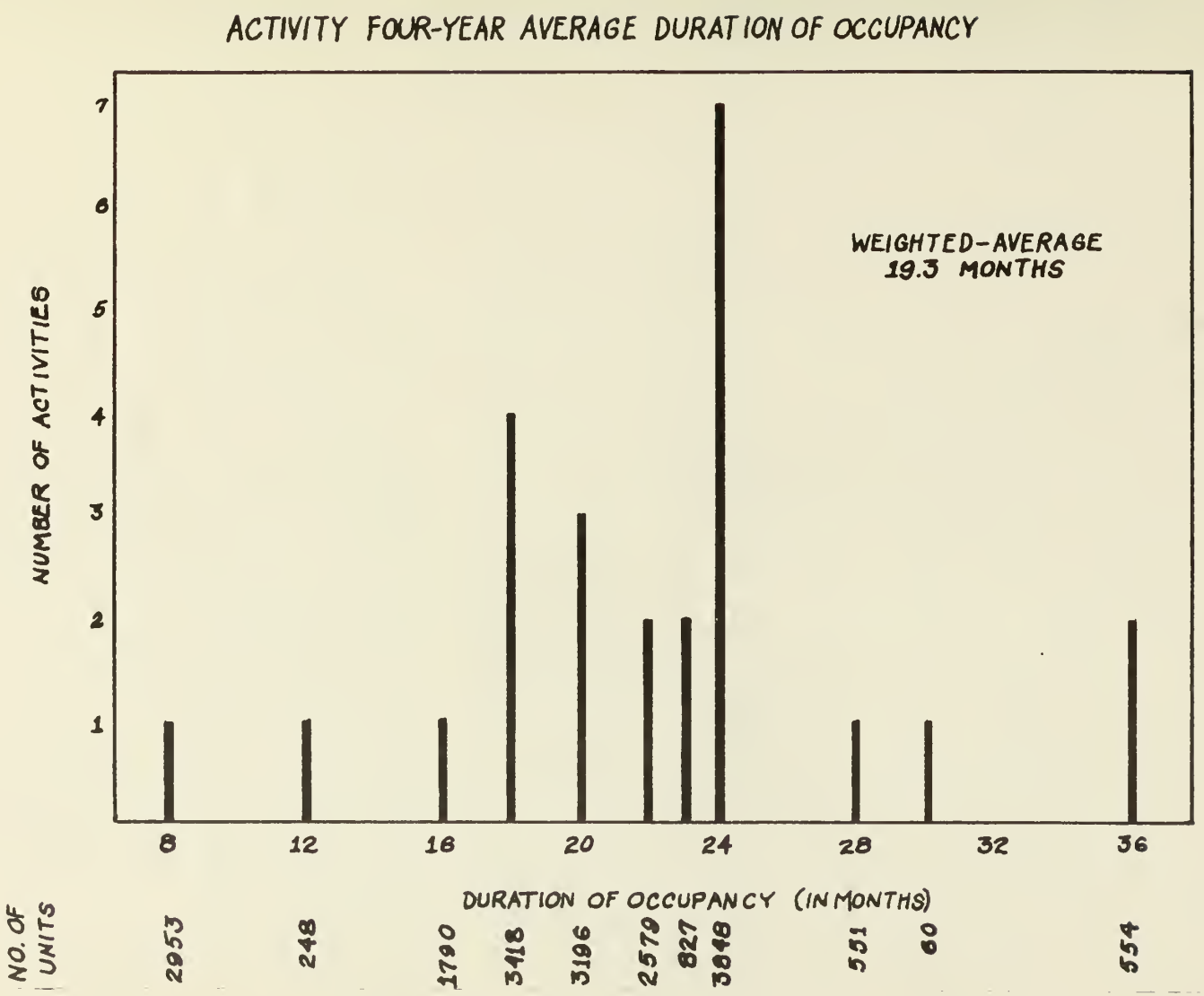
Occupancy and Utilization

Effective management of occupancy and utilization requires not only the full support of command in assignment matters, but also the complete cooperation of the entire Public Works Department to insure that maintenance work is promptly scheduled and accomplished.

The Defense Department vacancy rate standard of two per cent for all except substandard quarters allows for 7.3 vacancy days each year. Based upon the term of occupancy data shown in Exhibit 17, the four-year weighted-average term of occupancy at the activities surveyed is about 19.5 months. Therefore, a 12-day vacancy could be used at each change of occupancy and still meet the two per cent standard.

The activities surveyed all indicated that they meet the

Exhibit 17


ACTIVITY FOUR-YEAR AVERAGE DURATION OF OCCUPANCY
NUMBER OF ACTIVITIES
1
2
3
4
5
6
7
WEIGHTED-AVERAGE
19.3 MONTHS
8
12
16
20
24
28
32
36
DURATION OF OCCUPANCY (IN MONTHS)
NO. OF UNITS
2953
248
1790
3418
3196
2579
827
3848
551
60
554

vacancy standard in most cases.[73] Fourteen of the activities are using the quarterly Housing Report, NAVDOCKS 2964, (see Exhibit 9), to help monitor their own performance in this respect. In addition, many activities have devised local reports of the type shown in Exhibit 18 and Exhibit 19 to assist in focusing management's attention on the responsibility centers involved in the change of occupancy process. This type of report is particularly useful to the housing manager as a means of enlisting cooperation from the sectors over which he has no direct control, such as the maintenance foreman and the housing assignment official (when other than the housing manager himself).

Field Engineering Offices also use the Housing Report, NAVDOCKS 2964, to monitor activity performance. Applying the technique of management-by-exception, they focus attention on those activities having difficulty in meeting vacancy rate standards.

The survey results indicate that the Housing Utilization Report, NAVDOCKS 3014 (see Exhibit 10), is not being used for local management purposes. The principle use of this report by Field Engineering Offices is to monitor activity assignment practices and the utilization of furniture and equipment. Five out of eight Field Engineering Offices consider that the furniture and equipment data shown in Sections II and IV of the report are

---

[73] A specific example of where the vacancy rate standard is difficult to meet is the case where a major conversion project, such as modernization of a Wherry Housing Project is underway. Accomplishing this type of work economically results in many quarters being held vacant for periods of several months at a time. This, obviously, precludes meeting the vacancy rate standards.

Exhibit 18

Weekly Service Report on Quarters Under BASH Control
[illegible] George A. Dale, Jr., [illegible]

To: Executive Officer

From: Public Works Officer

Date: 5 February 1955

QTRS.	DATE VACANT	LAST DATE	REPAIRS TO START	REPAIRS COMPLETED	SCHEDULED OCC. DATE	OCCUPANT		REMARKS
6	1 Apr	1 Mar				CDR W. H. NEAL, III CDR E. F. VERDERY	(P) (N)	
11-2	18 Jan	15 Jan	19 Jan	22 Jan				Awaiting Assignment
11-13	6 Nov	6 Nov	None					Awaiting Assignment
11-17	25 Jan	25 Jan	None					Awaiting Assignment
11-20	28 Dec	17 Dec	None		4 Feb	LCDR E. E. SCHNETZLER	(N)	
27-3	Mar	18 Feb				CDR J. A. DAVIS	(P)	
35	2 Feb	18 Jan	3 Feb	5 Feb	7 Feb	CDR E. F. VERDERY	(N)	
49	Apr	18 Mar				LT J. S. POORE	(P)	
						SAUFLEY FIELD		
11	25 Feb	9 Feb				R. P. ANDREWS, USA	(P)	

Exhibit 19

VACANCY PROGRESS RECORD

	UNIT NUMBER
	DATE OF VACATE NOTICE
	DATE OF PRELIMINARY INSPECTION
	DATE INSPECTION REPORT TO MCD
	DATE JOB ORDER SIGNED
	DATE JOB ORDER RECEIVED BY SHOPS
	DATE UNIT VACATED
	NUMBER OF DAYS WITHOUT JOB ORDER
	DATE WORK STARTED
	DAYS VACANT PRIOR TO START OF WORK
	DATE WORK COMPLETED
	NUMBER OF DAYS REQUIRED FOR WORK
	TOTAL DAYS BETWEEN VACATE & WORK COMPLETE
	DATE ASSIGNMENT OFFICER NOTIFIED
	DATE ASSIGNED

more closely allied to budget requirements, and as such, would be more appropriately a part of the annual budget request.

Management Assistance Reviews

All Field Engineering Offices surveyed consider that management assistance reviews are effective as a technique for providing periodic management guidance to the activity commanding officer and his housing management staff. The management reviews provide for the personal contact between operating and middle management so important to improving communications, understand of and commitment to the overall objectives of the housing program.

The procedures for conducting these reviews are presently under revision in the interest of streamlining the process and reorienting its emphasis toward technical and administrative assistance instead of detailed scrutiny.[74]

Revised procedures will also reduce the present widespread distribution of review-reports. One Field Engineering Office expressed the opinion that reducing distribution as proposed (report to go only to the activity), will result in some loss of valuable feedback from present recipients (e.g., Naval District Commandants, Navy Area Audit Offices and others). Since the primary purpose of the reviews is communication between operating and middle management, problems that are brought to light should be resolved between the activity and the Field Engineering Office concerned, rather than being "aired" to several levels of

---

[74] CDR H. L. Bowman at Code 60 Conference, January 18, 1965, loc. cit.

command for review and comment. Accordingly, most Field Engineering Offices consider that streamlining the procedures, as proposed, will not result in a sacrifice in effectiveness of the reviews.

Occupant Relations Program

A successful occupant relations program can, by its very nature, generate many benefits to both management and the service families who occupy Navy housing. Tangible benefits include reduced maintenance and operating costs resulting from prudent care of the quarters and a conscious interest in utilities conservation on the part of the occupants. In addition, benefits are of an intangible nature such as result from the friendly spirit which may characterize "community" living, as opposed to "project" living.

Measuring the effectiveness of the occupant relations program in family housing, if possible at all, is a highly elusive task and has not been attempted in this paper. Suffice to say that, as inspired leadership makes for a happy crew, so will a sound occupant relations program contribute to the contentment of the Navy housing community.

CHAPTER IV

SUMMARY AND CONCLUSIONS

This paper has presented a discussion of the Navy's system for management of family housing, setting forth the highlights of the significant events and problems which led to an evolution of the management system from a fragmented, ill-defined housing program through a period of centralization within the Navy, and finally culminating in the Department of Defense centralized family housing program in operation today.

Formalization of the present management system came in the wake of keen Congressional interest in the manner in which the Department of Defense family housing assets were being managed. Reports by the General Accounting Office presented a bleak picture of the situation by citing examples of how excessive costs were being incurred to maintain existing family housing assets. While these examples were the exception rather than the rule, a strong defense of the housing program could not be made since the then existing practice of supporting family housing operation and maintenance as an integral part of the general station operation and maintenance program precluded separate identification of housing costs. Congressional pressure and the steady growth in the number of housing assets with a resulting growth in the need for housing operation and maintenance dollars, as a percentage of overall

annual activity funding, made separation of housing and other mission-support requirements a necessity.

Establishment of the Department of Defense Family Housing Management Account provides the means to identify the resource needs for Military housing to the Congress. The Secretary of the Navy can now speak to the Secretary of Defense on housing matters with "one voice," and the Secretary of Defense can, in turn, speak to the Congress about the housing program with "one voice." Moreover, at the operating level, activities can identify the dollars being spent in support of the family housing program.

Problems and Needs of the Organization

The element of functional foremanship clearly exists in the present centralized family housing organization, particulary within the Department of the Navy. This functionalism has contributed to a reduction in competition for resources at the activity level and has brought a higher degree of expert knowledge to bear on housing management matters at the Field Engineering Office and the Bureau of Yards and Docks. However, there is a danger in this functional specialization which must be guarded against. As more expertise is gained at the Field Engineering Office and Bureau levels, the appetite for increased detailed accounting information becomes more difficult to control. This leads to a tendency to proliferate increasing demands for more detailed reporting to higher levels of management. (Example: The stated desire of several Field Engineering Offices for obligation-rate data by budget line code, on a monthly basis.)

One aspect of the organization which does not appear to

have kept pace with the evolving management system is the compatibility of the qualification requirements, responsibilities, and grade levels of the activity housing managers. Almost half of the Public Works Officers surveyed consider that the housing manager's grade level is not consistent with the responsibilities assigned. This occurs in spite of the fact that a majority of the housing managers are not assigned the full range of responsibilities for budget preparation and execution (control of work and funds) as envisioned by the Bureau of Yards and Docks staffing guidelines. Further, most housing managers have progressed to their present positions through the channels of routine administration, with little or no formal education in the field of business or management.

Since the housing manager is the base upon which the functional housing organization depends for success, it seems clear that there is a need: (1) to acknowledge the full importance of the housing management position and assist the field activities in substantiating adequate grade levels; (2) to initiate an aggressive training program to assist presently assigned housing managers in becoming better qualified to cope with the management demands of the housing program, and (3) to institute action which may be appropriate to increase the professional input into the ranks of activity level housing management staffs.

Managing Dollar Resources

Financial management for family housing can be divided into the three phases of planning, budgeting and control. Since the traditional pattern of historical budgeting can no longer be

accepted as a sound representation of resource requirements, the importance of maintenance planning as a prelude to budgeting is steadily increasing. Effective planning of a work schedule permits the activity to program major items of work over a two or three year period, thereby facilitating the provision of funding support needed to accomplish such work. In this way, effective employment of maintenance planning becomes a measurable aid to the budget process. Thus, a continuing emphasis toward fuller implementation of effective long range maintenance planning and short range comprehensive planning is indicated.

The activities surveyed considered that procedures used for the Fiscal Year 1965-66 budget call were effective in overall program execution. Formats to be used for the 1966-67 budget call have been designed to provide a complete parallel with the chart of accounts required in the uniform cost reporting system. This step will serve to reduce the accounting burden at the field activities.

Recent funding levels seem to be consistent with a reasonable standard of maintenance since the backlog of essential maintenance for the activities surveyed is stabilizing. However, it will be necessary to carefully monitor future activity backlog trends to ensure that reduced funding levels do not result in the generation of an inordinate backlog of maintenance work, thereby jeopardizing the material condition of the housing assets.

In the budget execution phase of financial management, two types of accounting are being used for control--cost accounting and financial accounting. The basic framework for use of

these types of accounting is prescribed by the Comptroller of the Navy. Additional implementing procedures and techniques are provided under the Public Works management guidance promulgated by the Bureau of Yards and Docks. Actual field activity implementation of the two accounting systems varies from activity to activity, particularly in the manner and extent to which reports are being used by operating management.

Less than half of the activities surveyed are using the Family Housing Operation and Maintenance Cost Report for their own management purposes. Field Engineering Offices are using the cost reports principally to monitor budget execution, a process which is complicated by the inclusion of accrued costs and the absence of a straight-line pattern of cost incurrance by line codes. Further, most activities are using locally-designed financial control reports (which may or may not relate to budget or cost line codes) to serve in management of obligation-rates. Since most activities have found it necessary to institute locally-designed reporting to meet their own management requirements, it is evident that the presently prescribed accounting procedures do not adequately serve this dichotomy of activity financial and cost accounting needs. One reason is that the cost accounting system was superimposed over an already complex accounting framework (Expenditure Accounts) without full consideration of its impact on activity accounting requirements as a whole; the cost system, therefore, is not being effectively used by activity management. Further, because of the added cost identification

numbers which must be used in accounting for each transaction, continuation of a high incidence of technical errors can be expected.

Recent steps to improve the compatibility of budget line codes with cost line codes will serve to reduce some of the confusion at the field activities; however, further efforts are indicated, such as elimination of the use of the Expenditure Account system in family housing accounting. There is a need for a thorough-going review of both the financial and cost accounting needs of the activity level manager, to the end that a simpler, more meaningful system may be devised to serve operating management. While it is recognized that there must be an acceptable common pattern for the information needs of higher echelons, an accounting system must first meet the needs of the "hands-on" level management if true efficiencies are to be effected.

With regard to occupancy and utilization of existing housing assets, present reporting procedures are being effectively used at all levels of management to minimize vacancy losses and to insure that housing assignments are consistent with quarters designations. The program objectives are well understood and the reports serve a meaningful purpose at each level of management. It appears, however, that the furniture and equipment usage data reported in the Housing Utilization Report, NAVDOCKS 3014, are more closely allied to financial management and would be more logically a part of the activity budget request.

Management assistance reviews are being effectively used as an aid to both activity and Field Engineering Office management.

In addition, while no attempt has been made in this paper to measure its effectiveness, the value of a vigorous occupant relations program related to family housing in the Navy is evident.

The system for management of family housing within the Navy is basically effective in meeting the objectives set forth by the Secretary of Defense. There is an urgent need, however, to acknowledge the fact that effective direction of a program of this complexity requires a high degree of management expertise on the part of activity housing managers--an expertise that is, indeed, lacking at many activities. Finally, insufficient attention has been given to the needs of activity managers in the design of the accounting system. The presently prescribed system does not adequately serve the activity either in terms of cost or financial accounting. There is every indication that most activities are managing effectively in spite of, rather than because of, the prescribed accounting system.

APPENDICES

APPENDIX I

ACTIVITIES AND FIELD ENGINEERING OFFICES PARTICIPATING IN THE SURVEY

Activities

U. S. Naval Air Station, Quonset Point, Rhode Island

U. S. Naval Submarine Base, New London, Connecticut

U. S. Naval Air Station, Lakehurst, New Jersey

U. S. Navy Public Works Center, Norfolk, Virginia

U. S. Naval Weapons Station, Yorktown, Virginia

U. S. Marine Corps Air Station, Cherry Point, North Carolina

U. S. Marine Corps Air Station, Beaufort, South Carolina

U. S. Naval Air Station, Cecil Field, Florida

U. S. Naval Air Station, Pensacola, Florida

U. S. Naval Training Center, Great Lakes, Illinois

U. S. Naval Ammunition Depot, Crane, Indiana

U. S. Naval Air Station, Point Mugu, California

U. S. Naval Ordnance Test Station, China Lake, California

U. S. Marine Corps Air Station, Yuma, Arizona

U. S. Naval Air Station, Alameda, California

U. S. Naval Ammunition Depot, Hawthorne, Nevada

Mare Island Naval Shipyard, Vallejo, California

U. S. Naval Air Station, Moffett Field, California

Puget Sound Naval Shipyard, Bremerton, Washington

U. S. Marine Corps Air Station, Kaneohe Bay, Oahu, Hawaii

U. S. Naval Ammunition Depot, Oahu, Hawaii

U. S. Naval Air Test Center, Patuxent River, Maryland

U. S. Naval Academy, Annapolis, Maryland

Field Engineering Offices

District Public Works Office, First Naval District

District Public Works Office, Third Naval District

District Public Works Office, Fourth Naval District

District Public Works Office, Ninth Naval District

District Public Works Office, Twelfth Naval District

Director, Southeast Division, Bureau of Yards and Docks

Director, Pacific Division, Bureau of Yards and Docks

Area Public Works Office, Chesapeake

APPENDIX II

ACTIVITY QUESTIONNAIRE
Page 1

ADMINISTRATION

1. Do you have a full-time Housing Manager?

( ) Yes ( ) No

If yes, what is his:

a. Level of education ( ) high school, ( ) college--

( ) years. Grad. ( ) yes ( ) no. Major _____

b. GS Grade Level _____

c. Years in present assignment _____

d. General background prior to present assignment: _____

---

e. Do you feel that his present grade level is consistent with the responsibilities and scope of work assigned?

( ) Yes ( ) No

2. Is the Housing Manager responsible for assignment of family housing as well as general housing management?

( ) Yes ( ) No

3. Is the Public Works Officer designated as the Housing Assignment Officer?

( ) Yes ( ) No

If not, what official is so designated? _____

4. Roughly, what percentage of your (PWO's) time is spent in housing management matters (including budgeting, costing, assignment, facilities operations and maintenance?

_____ %

5. Roughly, what has been the average term of occupancy over the last four years?

_____ months

6. Do you have a Housing Maintenance Work Center for the performance of housing O&M?

( ) Yes ( ) No

If yes, how many personnel are normally assigned on a full-time basis?

_____

How many ungraded personnel in the Public Works Department?

_____

7. How are utilities consumption data obtained and costed?

	Engin'r'd Est.	Metered
Elect. Power	( )	( )
Gas	( )	( )
Fuel Oil	( )	( )
Water	( )	( )
Sewage	( )	( )

8. Since the costing sytem (NAVCOMPT 2100) required by NAVCOMPT INST 11101.7B has been implemented, do you or the Comptroller feel that you are getting any management benefit from the Expenditure Accounts that apply to housing costing?

( ) Yes ( ) No

If yes, explain briefly:

9. Do you use the NAVCOMPT Form 2100 Family Housing Operation and Maintenance Cost Report as a management tool to assist at your level in managing the family housing assets?

( ) Yes ( ) No

How often is this report prepared at your Activity?

( ) Monthly ( ) Quarterly ( ) Other, specify _____

If quarterly, do you feel this is too often for your purposes?

( ) Yes ( ) No

10. Submission of NAVCOMPT Form 2100 report requires developing accrued cost data.

Is a significant amount of effort involved in developing this accrued cost data?

( ) Yes ( ) No

Is the accuracy of estimated accrued cost data accurate enough to be meaningful/useful as an assist in your management of housing?

( ) Yes ( ) No

What official prepares the engineered estimates of accrued costs?

( ) Housing Manager ( ) Maintenance Foreman
( ) MCD ( ) Other, specify _____

11. The NAVCOMPT 2100 reports are oriented generally toward budget line code classifications and require that cost data be reported by line codes. Traditional BUDOCKS Maintenance Control cost reporting has heretofore been oriented toward individually estimated "specific" work authorizations against which completed job order reports were prepared by Fiscal. Does your present costing system provide for identification of costs lodged against a given "specific" work authorization on a routine basis (for other than Flag or C.O. quarters) as well as identification of cost by budget line code classification?

( ) Yes ( ) No

If not, do you feel that you have adequate control of costs when accumulated only by budget line code classification? (e.g., are "specific" work authorizations individually costed?)

( ) Yes ( ) No

12. Does the Comptroller provide some form of an obligation (or commitment) report, showing obligations by budget line code classification, for your use as a management report?

( ) Yes ( ) No

If so, what is the frequency?

( ) Weekly ( ) Monthly ( ) Quarterly

Indicate whether: ( ) Obligation or ( ) Commitment

13. Is the Comptroller able to provide the necessary accounting support for your housing cost reports and budget execution on a timely basis?

( ) Yes ( ) No

Indicate the reports received from the Comptroller:

Type	Frequency

Was an increase in personnel required either in the Comptroller Dept. or in the PW Dept. to support cost accounting reports NAVCOMPT 2100?

( ) Yes ( ) No

If yes, specify grade level and location:

14. If available, please provide copies of any locally designed management-type reports being used in connection with housing management, along with a brief explanation of its use(s).

15. Is the Housing Budget prepared by the Housing Manager?

( ) Yes ( ) No

If not:

a. What official does prepare it? _____

b. Does the Housing Manager make the final determination on the budget, subject, of course, to the approval of the PWO and CO?

( ) Yes ( ) No

16. Do you use the Public Works Control Summary as contained in Section 2 of the Public Works Management Improvements (promulgated as enclosure 1 to BUDOCKS NOTE 11014 of June 12, 1964) for planning and execution of the Housing Budget?

( ) Yes ( ) No

If not, do you use the general concept of the Control Summary (e.g., Budget Month - plan, actual, variance; Budget Year to Date - plan, actual, variance; APF, etc.) but substituting the budget line codes for the information shown on the item list at the left hand side of the form?

( ) Yes ( ) No

17. Do you use the Housing Occupancy Report (NAVDOCKS 2964) as a basis for local management action?

( ) Yes ( ) No

If yes, explain briefly:

18. Do you use the Housing Utilization Report (NAVDOCKS 3014) as a basis for any management action at your level?

( ) Yes ( ) No

If yes, briefly explain.

19. Roughly, how many manhours are required in the preparation of one regular submittal of the following reports (including all types of housing reportable)?

NAVCOMPT 2100 _____

NAVDOCKS 2964 _____

NAVDOCKS 3014 _____

20. Is your accounting function supported by Electronic Data Processing?

( ) Yes ( ) No

or Electric Accounting Machines?

( ) Yes ( ) No

If not, do you feel that an EDP or EAM system is needed to improve the timeliness of accounting reports?

( ) Yes ( ) No

How many of each type quarters are located at your Activity?

Capehart _____
Wherry _____
Fund Public Quarters _____
Other Public Quarters _____
Rental Quarters _____
Inadequate Public Quarters ____

MAINTENANCE

21. With the tight budgeting and cost reduction emphasis of recent years, have you been able to maintain your family quarters in a reasonable state of maintenance?

( ) Yes ( ) No

22. What was the Housing Backlog of Essential Maintenance as indicated in your Type "A" Annual Inspection Summaries in:

1960 _____ 1961 _____

1962 _____ 1963 _____

1964 (if available) _____

23. Is a facility history maintained on each housing structure?

( ) Yes ( ) No

If yes, who maintains the file?

( ) Housing Manager ( ) MCD

And, briefly, how is it maintained current?

24. Do you have a LONG Range Maintenance Plan?

( ) Yes ( ) No

If yes, is this plan an effective tool for developing your budget submittal and for use in budget execution?

( ) Yes ( ) No

Comment if appropriate:

What official prepares the plan? _____

25. Does the Housing Manager review and approve inspection reports and work authorizations as to physical and financial scope?

Inspection reports ( ) Yes ( ) No
Work authorizations ( ) Yes ( ) No

26. Are emergency/service calls approved by the Housing Manager prior to accomplishment?

( ) Yes ( ) No

If not, briefly, how does the Housing Manager control this type of work?

27. How is maintenance/repair work generated (roughly, by percent)?

( ) Emergency/service call by the occupant _____%
( ) Interoccupant inspections by Housing Mgt. Aide _____%
( ) Interoccupant inspection by MCD personnel _____%
( ) Continuous inspection program _____%
( ) Other, specify _____%

How much in advance of scheduled vacancy is the rehabilitation inspection made?

_____ days

28. Do you use a procedure of accomplishing certain items which may be termed "standard maintenance" (e.g., replace all faucet washers; PM all appliances; PM window and door hardware) to expedite issuance of interoccupant rehab work authorizations?

( ) Yes ( ) No

If yes, indicate specific areas set up on this basis:

29. What is the local policy/practice in regard to accomplishing rehab work prior to vacancy or after being reoccupied?

Briefly indicate the types and extent of work considered to be accomplished in this manner.

Do you find it practical or economically feasible to accomplish general painting (over and above minor touch-up) in occupied quarters?

( ) Yes ( ) No

30. Have you been able to "live" with the policy restated in the FY '65 budget call (BUDOCKS NOTE 7110 of March 2, 1964, Attach.B) which limits interior painting to:

1. No more than 1/3 of the units per year.
2. No change of colors by the occupant.
3. Standard color scheme.
4. Change of occupancy alone is not reason for painting unless a 3-year cycle has also been met.

5. Painting solely for the purpose of changing colors is not allowed

( ) Yes ( ) No

Comment as appropriate:

31. Have you found it economical and desirable to use a contract for interior painting, in general?

( ) Yes ( ) No

If yes, indicate type of contract: ( ) open-end ( ) one-time

32. How is furniture repaired and maintained?

( ) Station forces ( ) GSA Contract ( ) Other contract

If by "other contract" indicate type: ( ) open-end ( ) one-time

33. Is your overall housing maintenance done by contract?

( ) Yes ( ) No

If yes, does the contract provide for "option to extend" into another Fiscal Year?

( ) Yes ( ) No

Do you feel that the "option to extend" should be allowable for several years on a year-by-year basis? If so, indicate number of additional years:

( ) Two ( ) Three ( ) Four ( ) Five

34. Are other "continuing" service functions (such as grounds care, etc.) accomplished by contract?

( ) Yes ( ) No

If yes, specify types:

Does the other contract include "option to extend" provisions?

( ) Yes ( ) No

Do you feel that the option to extend should be allowable for more than twelve months:

( ) Yes ( ) No

GENERAL

35. Comment briefly, if desired, on your overall evaluation of the effectiveness of the Housing Management System as a tool to assist you at the Activity level to do a better job of managing your family housing assets. Are we over-controlling? Is the control and reporting effort inordinate when viewed against the savings realized? (For the purpose of this questionnaire, the Management System is considered to include the organization, the budgeting/costing system, the utilization and occupancy reports, the FEO management assistance reviews, but not including annual requirements surveys and other efforts involved in developing and justifying requirements for additional housing).

36. Indicate briefly any recommendations which you feel would make for improvements in the Housing Management System, such as consolidation or elimination of reports improvements to management reports and/or procedures.

APPENDIX III

FEO QUESTIONNAIRE
Page 1

MAINTENANCE

1. Are the Long Range Maintenance Plans being effectively used at Activities to plan and program maintenance and repair work?

( ) Yes ( ) No

2. Are these plans used as a basis for the annual budget preparation and execution?

( ) Yes ( ) No

UTILITIES

3. Has the program of establishing Activity utilities consumption targets for housing been implemented?

( ) Yes ( ) No

If yes, what is the general experience in your Activities with meeting the targets?

What steps, if any besides general publicity about utilities conservation, are being taken to control utilities consumption?

OCCUPANCY

4. Do you use the Housing Occupancy Report (NAVDOCKS 2964) as a basis for management action at the FEO level?

( ) Yes ( ) No

If yes, briefly explain:

Roughly how many manhours are spent in reviewing and coordinating each cycle of Activity 2964 in your FEO?

_____ hours

UTILIZATION

5. Do you use the Housing Utilization Report (NAVDOCKS 3014) as the basis for any management action at the FEO level?

( ) Yes ( ) No

If yes, briefly explain:

Roughly how many manhours are spent in reviewing and coordinating each cycle of 3014's in your FEO?

_____ manhours

If would appear that the information required in Section 1 of this report could be as effectively reported on a "when occurring" basis--reporting only those cases where a dwelling is assigned to a member more than one grade senior or junior to the grade for which the unit is constructed. Do you feel that the above approach would meet the general objective of Section I of the report?

( ) Yes ( ) No

If no, comment briefly:

Do you feel that the data required by Sections II and IV are more closely allied with budget requirements and as such could be better submitted on NAVDOCKS 2755 in support of the budget request?

( ) Yes ( ) No

If no, comment briefly:

COST REPORTS

6. Recognizing that the full intent of the FEO appraisal of Activity costs as set forth in BUDOCKS NOTE 11101 of December 4, 1964, may not yet be fully implemented, do you use the Activity NAVCOMPT 2100's as a basis for management action at the FEO level?

( ) Yes ( ) No

If yes, explain briefly:

Roughly how many manhours are spent in reviewing and coordinating each cycle of Activity 2100's in your FEO at the present level of implementation (assuming no Activity norms have been developed)?

_____ manhours

What frequency do you feel you need the NAVCOMPT 2100's at FEO level to meet your management needs?

( ) Monthly ( ) Quarterly ( ) Annually ( ) Other, specify _____

GENERAL

7. Are you using any locally developed management reports to assist you in managing the housing program at your FEO level?

( ) Yes ( ) No

If yes, please enclose a copy of the form/format with a brief explanation of how it is used.

8. Do you have electronic data processing support at the FEO level to assist in making better use of management information?

( ) Yes ( ) No

If no, do you feel that you need (or will need in the near future) EDP support in order to keep up with the management reporting and analysis necessary and to institute more timely management action?

( ) Yes ( ) No

9. Do you feel that the program of annual management assistance reviews is effective and is accomplishing the objective of providing the needed management guidance to Activity CO's, PWO's and Housing Management staffs?

( ) Yes ( ) No

If no, comment briefly:

10. Briefly, what do you feel is the role of the FEO in the management of Family Housing in the Navy? (in the area of Operations and Maintenance only).

Do you feel that you are getting adequate support from BUDOCKS and the Activities to permit you to carry out this role effectively?

( ) Yes ( ) No

If no, comment briefly on areas where you feel that you are being hampered from fulfilling the FEO role in effective housing management.

11. Comment, briefly, on your overall evaluation of the effectiveness of the Housing Management System of the Navy as a tool to assist the FEO to do a better job of managing the Navy's family housing assets. (For the purpose of this questionnaire, the Management System is considered to include the organization, the budgeting/costs system, the utilization and occupancy reports, the FEO management assistance reviews, but not including annual requirements surveys and other efforts involved in developing and justifying requirements for additional housing).

12. Indicate any recommendations for improvements to the Housing Management System, such as elimination or consolidation of reports, improvement to management reports and/or procedures.

BIBLIOGRAPHY

Public Documents

U. S. Department of Defense. Appendix to the Report of the Advisory Panel on Military Family Housing Policies and Practices. November 15, 1961.

U. S. Department of Defense. DOD INSTRUCTION 7220.16. May 18, 1964.

U. S. Department of Defense. Office of the Assistant Secretary of Defense (Comptroller). Family Housing Task Force Report on Uniform Cost Accounting. March, 1962.

U. S. Department of Defense. Office of the Assistant Secretary of Defense (Installations and Logistics). Family Housing Task Force Report on Uniform Cost Criteria. February, 1962.

U. S. Department of Defense. Report of the Advisory Panel on Military Family Housing Policies and Practices. November 15, 1961.

U. S. Department of the Navy. Bureau of Naval Personnel. Organization Planning for Naval Units NAVPERS 18371A. 1964.

U. S. Department of the Navy. Bureauof Yards and Docks. BUDOCKS NOTICE 7110. March 2, 1964.

U. S. Department of the Navy. Bureau of Yards and Docks. BUDOCKS NOTICE 11101. December 4, 1964.

U. S. Department of the Navy. Bureau of Yards and Docks. BUDOCKS NOTICE 11014.12. June, 1964.

U. S. Department of the Navy. Bureau of Yards and Docks. Housing Administration NAVDOCKS P-352. August, 1962.

U. S. Department of the Navy. Bureau of Yards and Docks. Maintenance Management of Public Works and Public Utilities NAVDOCKS p-321. 1961.

U. S. Department of the Navy. Office of the Comptroller of the Navy. NAVCOMPT INSTRUCTION 11101.7B. July 29, 1964.

U. S. Department of the Navy. Review of Management of the Department of the Navy, NAVEXOS P2426B. December 15, 1962.

U. S. Department of the Navy. SECNAV INSTRUCTION 11101.67. December 30, 1963.

U. S. House of Representatives. Committee on Appropriations. Surveys and Investigations Staff, Report on Costs of Operating and Maintaining Capehart, Wherry, and Other Family Housing, U. S. Department of Defense, January, 1961.

Books

Albers, Henry H. Organized Executive Action. New York: John Wiley & Sons, Inc., 1962.

Locken, Robert D., and Strong, Earl P. Supervision in Business and Industry. New York: Funk & Wagnalls Company, Copyright 1949.

Nickerson, Clarence B. Managerial Cost Accounting and Analysis. New York: McGraw-Hill Book Company, Inc., Copyright 1954.

Taylor, Frederick Winslow. Shop Management. New York: Harper & Brothers Publishers, Copyright 1947.

Articles and Periodicals

Borth, Daniel. "Dynamic Accounting for Defense," The Federal Accountant, XIII, Number 1 (September, 1963), p. 84.

Dowd, James. "The Board of Directors Looks at Long Range Planning," The Controller, XXX, Number 11 (November, 1962), p. 537.

Harrill, E. Reese. "A Unified System of Governmental Accounts," The Federal Accountant, XIV, Number 2 (Winter, 1964).

Unpublished Material

Bowman, H. L., CDR, CEC, U. S. Navy. "What's New in Family Housing." Paper presented before the Bureau of Yards and Docks--Field Engineering Office Code 60 Conference, Port Hueneme, California, January 18, 1965.

Other Sources

U. S. Department of Defense. Memorandum from the Assistant Secretary of Defense (Comptroller) to the Service Secretaries (Financial Management). March 17, 1962.

U. S. Department of Defense. Memorandum from the Secretary of Defense to the Secretaries of the Military Departments, Joint Chiefs of Staff, et al. September 23, 1961.

U. S. Department of Defense. Office of the Deputy Assistant Secretary of Defense (Installations and Logistics) Family Housing. Personal interview with CDR B. F. Burch, CEC, USN. November 27, 1964.

U. S. Department of Defense. Office of the Deputy Assistant Secretary of Defense (Installations and Logistics) Family Housing. Personal interview with Mr. L. P. Lyon. December 11, 1964.

U. S. Department of the Navy. Bureau of Yards and Docks. Letter from the Chief, Bureau of Yards and Docks, to all District Public Works Officers, et al., May 9, 1960.

U. S. Department of the Navy. Bureau of Yards and Docks. Personal interviews with CDR H. L. Bowman, CEC, USN, Director, Housing Operations Division. November and December 1964, and January and February 1965.

U. S. Department of the Navy. Bureau of Yards and Docks. Personal interview with Mr. G. T. Korink, Director, Housing Planning and Evaluation Division. November 20, 1964.

U. S. Department of the Navy. Bureau of Yards and Docks. Personal interview with Mr. W. E. Lovelace, Housing Planning and Evaluation Division. November, 1964 and February, 1965.

thesO53
Management of the operations and mainten
3 2768 001 97322 5
DUDLEY KNOX LIBRARY